

# MIDWAY



*A Magazine of Discovery in the Arts and Sciences*

*Soul  
Pursued*

SEP 1953

## **On Loneliness**

FRIEDA FROMM-REICHMANN

## **The Ax That Cut the Centuries**

ALFRED MÉTRAUX

## **Seat of the Soul**

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# MIDWAY

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# Contents

- 4 On Loneliness *Frieda Fromm-Reichmann, M.D.*
- 24 Seat of the Soul *Percival Bailey, M.D.*
- 46 Greek Tragedy: A Modern Image *Moses Hadas*
- 53 Poems *John Logan*
- 56 The Ax That Cut the Centuries *Alfred Métraux*
- 76 Why Everybody Needs an Enemy *Arthur Gladstone*
- 87 Circumstance *S. W. Becker, Jr., M.D.*
- 88 Destiny Conquered—A Tale of Ancient India  
*Translated from the Sanskrit by J. A. B. Van Buitenen*
- 112 East vs. West Economic Goals *George J. Stigler*
- 127 Midway Authors

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T  
n  
Y  
A  
n  
g  
V  
t  
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c  
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Y magazine for that particular kind of layman, the armchair scholar.

Traditionally a scholar publishes the fruits of his research primarily for his colleagues in books or journals relating to his field.

Yet in fields other than his own, the scholar is a layman too.

And frequently the interested layman is excluded from communication with the specialist because of the technical language used.

We hope to stand midway between scholar and scholar, between scholar and layman.

We will select from the works of scholars the world over, in all fields, from the journals and books published by The University of Chicago Press, those articles and reports we find most significant, and present them in non-technical language for the layman. We will also occasionally include poems, stories, and plays.

We invite you to explore with us the many worlds of the mind.

THE EDITOR



"People who are  
in the grips  
of severe degrees of loneliness  
cannot talk about it,  
and those who WERE there  
seldom do so either."

FRIEDA FROMM-REICHMANN

# On Loneliness

*At the time of her death Dr. Frieda Fromm-Reichmann had in mind the preparation of a paper on "Loneliness." In it she wished to present some conclusions she had come to during the course of her many years in psychiatric work.*

*A rough draft of her ideas was subsequently found in her desk. These thoughts, somewhat abbreviated but in the original sequence, are offered here.*

I do not know for sure what inner forces have made me for years ponder about and struggle with the psychiatric problems of loneliness. There has been a strange fascination in thinking about it and subsequently trying to break through the aloneness of thinking about loneliness by attempting to communicate what I believe I have learned.

The writer who wishes to elaborate on the problems of loneliness is faced with a serious terminological handicap: Loneliness seems to be such a painful, frightening experience that people do practically everything to avoid it. This avoidance seems to include a strange reluctance on the part of psychia-

trists to seek scientific clarification of the subject. Thus it has come about that loneliness belongs to the least satisfactorily conceptualized psychological phenomena; it is not even mentioned in most psychiatric textbooks. Very little is known among scientists about its genetics and psychodynamics, and various experiences which are descriptively and dynamically as different from one another as aloneness, isolation, loneliness in cultural groups, self-imposed aloneness, compulsory solitude, and real loneliness are all thrown into the one terminological basket of "loneliness."

In contrast to the disintegrative effect of the essential loneliness of mental patients, temporary states of self-induced solitude, which may be voluntary and alternately sought and rejected, quite frequently turn out to be most constructive. Regarding the loneliness of the creative worker, we should also remember that nearly all works of creative originality are conceived in states of constructive aloneness. In fact, only the creative person who is not afraid of this constructive loneliness will have command over the productive emanations of his creative mind. Some of these people, "schizoid artistic personalities" in Karl Menninger's nomenclature, submit to us as products of their detachment from normal life "fragments of their own world—bits of dreams and visions and songs that we—out here—don't hear except as they translate them." In addition, an original, creative person may be lonely not only for the time of his involvement in creative processes but subsequently also because of them, since creations of genuine originality ordinarily antedate the ability of contemporaries to understand and/or to accept what the lonely creator has to offer.

However, to many of the "other-directed types" of our present culture, as Rollo May has observed, "loneliness is such an omnipotent and painful threat that they have little con-

ception of the positive values of solitude, and are at times very frightened of the prospect of being alone."

This may even hold true, for example, in the case of the subjective feeling of aloneness of a person who has to stay in bed with a cold on a pleasant Sunday afternoon while the rest of the family is enjoying the outdoors. He may complain about loneliness and feel sorry for himself, but, needless to say, he is not "lonely"; he is just temporarily alone. Such little problems will therefore not be included in our discussion.

The same holds true, though on another level, for people who suffer from the sense of loss and of being left alone which is connected with mourning for a deceased person. Freud and Abraham have described the dynamics of the mourners who try to counteract this aloneness by incorporating the deceased beloved person. They have brought to our attention the fact that the process is descriptively verified by the development of likenesses to the lost loved ones in looks, personality, and activities. In other words, there is a power immanent in the human mind to fight the aloneness after loss of a beloved person by incorporation and identification.

Real loneliness, however, leads ultimately to the development of psychotic states. It renders people who suffer it emotionally paralyzed and helpless. These are the states of loneliness with which we wish to deal in this paper. To put it in Sullivan's words, they are "the exceedingly unpleasant and driving experiences connected with an inadequate discharge of the need for interpersonal intimacy" with which every human is threatened.

The infant thrives on living in intimate and tender closeness with the person who tends him and mothers him. In childhood the healthy youngster's longing for intimacy is, according to Sullivan, fulfilled by his participating in activities with others; in the juvenile era, by finding compeers and acceptance.

As an adolescent, and in the years of growth and development thereafter, man feels the need for friendship and intimacy jointly with, or independently from, his sexual drive.

John C. Lilly reports on psychological experiments in isolation on very young animals. He found that the effect can be an almost completely irreversible lack of development of whole systems, "such as those necessary for the use of vision in accomplishing tasks put to the animal."

René Spitz demonstrated the fatal influence of lack of love and of loneliness on neglected infants, in what he called "anaclitic depression."

Anna Freud, in her lecture at the 1953 International Psychoanalytic meetings in London, described sensations of essential loneliness in children under the heading of "Losing and Being Lost."

Sullivan and Suttie have investigated what may happen if a person's infantile need for tenderness remains unsatisfied or if its satisfaction is prematurely interrupted. The child may resort to substitute satisfactions in fantasy, which he cannot share with others, i.e., he becomes a lonely child.

Robert Lindner has presented an impressive example of the fatal results of such faulty developments in his treatment history of Kirk Allen, the hero of "The Jet-propelled Couch," a "true psychoanalytic tale."

Lucy Sprague Mitchell offers an interesting discussion of the impact of loneliness in childhood in her "Two Lives," a "dual autobiography-biography." She contrasts the influence of her childhood loneliness with the affection, approval, and security her husband had as a child in his home. Mrs. Mitchell also realized the importance of the human need for friendship and intimacy and its importance for the development of a unified personality.

The lonely child's primary sense of isolation may subse-

quently be reinforced if, despite the pressures of socialization and acculturation, he does not sufficiently learn to discriminate between realistic phenomena and the products of his lively fantasy. He may then further withdraw into isolation in order to escape being laughed at or being punished for replacing reports of real events by fictitious narratives.

The process of the child's holding on to the uncorrected substitutive products of his early fantasy life and the social isolation connected with it can be avoided if the mothering one does not wean the infant from receiving her love before he is ready to try for the satisfaction of the modified needs for intimacy characteristic of his ensuing development phase. That is, we agree with Suttie's warning against the danger that separation from the direct tenderness and nurtural love relationship with the mother may outrun the child's ability for making substitutions. This is a rather serious threat to an infant and child in our age of taboo on tenderness among adults. If and when it happens, the roots of permanent aloneness and isolation, "love-shyness" (Suttie), and fear of intimacy and tenderness are planted in the child's mind, and the defensive reactions to separation may lead to psychopathological developments.

Karl Menninger described the milder states of loneliness in adults which result from this failure to handle infants and children—his "isolation types of personality."

More severe developments include the unconstructive desolate phases of isolation and real loneliness which are beyond the state of feeling sorry for oneself, *the states of mind in which the fact that there were people in one's past life is more or less forgotten and the hope that there may be interpersonal relationships in one's future life is out of the realm of expectation or imagination.*

This loneliness, in its quintessential form, is of a nature that

is incommunicable by the one who suffers it. Nor, unlike other non-communicable emotional experiences, can it be shared via empathy. It may well be that the second person's empathic abilities are obstructed by the anxiety-arousing quality of the mere emanations of the first person's loneliness. I wonder whether this explains the fact that real loneliness defies description, even by a master of conceptualization like Sullivan.

People who are in the grips of severe degrees of loneliness cannot talk about it, and those who were there seldom do so either. Because of the extremely frightening and gruesome character of the experience, they try to dissociate the memories of the sense of loneliness, including their fear of it. This frightened secretiveness and lack of communication about their loneliness seem to increase the threat entailed in it for the lonely ones, even in retrospect: it produces the sad conviction that nobody else has experienced or ever will sense what they have experienced or what they have submerged.

Incidentally, there may be a secondary element in the perseverance of the loneliness of some psychotics. Because of their interpersonal detachment, some of them may be more keen, sensitive, and fearless as observers of the people in their environment than is the average, non-lonely, mentally healthy person. They may feel free to express themselves with many painful truths regarding others, things that would otherwise remain unobserved or suppressed by their healthy and gregarious fellow men. The case of the court jester is an example of what I have in mind. Persons outside the fool's paradise that is granted to the jester may be displeased if not frightened at hearing these unwelcome truths, and they may erect a psychological wall of ostracism and isolation around such psychotic "court jesters" as a means of protecting themselves.

Cervantes has given a poetic description of this mechanism in his novel *The Man of Glass*. He depicts there a psychotic

man who suffers from the delusion that he is made of glass and who indiscriminately offers the pearls of his uncensored human wisdom to the people in his environment. They listen to him as long as they experience him as a psychological recluse who is isolated from them by virtue of his "craziness." In this setup they can laugh off the narcissistic hurts to which the wise psychotic man exposes them. As he recovers from his delusions, however, the public prevents him from getting back on his feet. The unwelcome truths of "the man of glass" are acceptable only so long as he lives in the psychological isolation of his psychosis. Since his truths have been accepted, the people around him prefer that he remain mentally sick or else that he remain isolated by virtue of their ostracism.

While all adults seem to be afraid of *real loneliness*, fear of *aleness* and tolerance for it vary from person to person. I have seen, for example, people who got deeply frightened when facing the infinity of the desert with its connotations of loneliness, others who felt singularly peaceful and serene and pregnant with creative ideas when left alone with their "oceanic feelings" in the face of nature. I would like to digress here from the subject of real psychogenic loneliness by asking the reasons for the deep-rooted fear or anxiety connected with aleness and the threat of ensuing loneliness that is felt by one group of people and the fearless enjoyment of it felt by others. Why are so many people afraid of temporary aleness or even such experiences as mere silence, which may—or may not!—connote potential aleness?

The answer seems to be determined by the following facts: It appears that in our culture people can come to a valid self-orientation or even awareness of themselves only in terms of their actual overt relationships with others. "Every human being gets much of his sense of his own reality out of what others say to him, and think about him," as Rollo May puts it. While

alone and isolated from other human beings, people feel threatened by the potential loss of their boundaries, of the ability to discriminate "between wakefulness and sleep—between the subjective self and the objective world around them." Valid as this general explanation for the rise of fear of aloneness may be, it leaves the significant question unanswered: Why is not this fear a ubiquitous phenomenon?

Generally speaking, I believe that the degree of a person's dependence on others for self-orientation, the degree of anxiety aroused in him by the threat of isolation from them, depends upon the vicissitudes of personal development. Whether or not individual variation in *tolerance for aloneness*—anticipated or actual—is related to the onset of *real loneliness*, we do not yet know. The answer might come from an intensive scrutiny of the developmental histories of the pathologically lonely ones. Unfortunately, it would be hard to conduct such investigations because of the lack of communication previously mentioned as one of the reasons for our actually knowing so little about the genetics and dynamics of real loneliness. As Zilboorg puts it, we do not yet know when being alone will lead to creative "social, artistic, philosophic or characterological performances" and when mental illness will be the outcome.

Sullivan characterizes the need for intimacy as belonging to the same group of basic needs as hunger, sleep, and sex. Anyone who has encountered persons who are under the influence of real loneliness understands why they will go to such lengths to avoid that degree of solitude which they classify as loneliness. They may even resort to anxiety-arousing experiences if it helps them escape loneliness, even though anxiety itself constitutes an emotional experience against which people fight, as a rule, with symptom-formation and every other defense at their command.

Sullivan was of the opinion, in fact, that psychiatrists must

resign themselves to describing real loneliness in terms of people's defenses against it. Freud points his thinking about it in the same direction; he refers to loneliness and people's defenses against it in *Civilization and Its Discontents*.

As one of the drastic defensive maneuvers to which a person may resort when he feels threatened by loneliness, compulsive eating should be mentioned. As we learned from Hilda Bruch's research on obesity, these compulsive eaters try to counteract their loneliness with overeating, which serves at the same time as a means of getting even with the significant environmental people whom the threatened eater holds responsible for his loneliness.

One patient told me that her most endearing childhood memory was of sitting in the darkened living room of her childhood home and secretly eating stolen sweets. In her first therapeutic interview she encountered me with the statement: "And then you will take away my gut pains [from overeating], my trance states [her delusional states of retreat], and my food; and where will I be then [i.e., if I give up these defenses against loneliness]?"

Needless to say such symptom-formation does not hold true as long as a person is fully in the grip of true, severe loneliness, with its specific character of paralyzing hopelessness and unutterable futility. This "naked horror" (Binswanger) at its peak is beyond anxiety and tension: defense and remedy seem out of reach. Only as its all-engulfing intensity decreases may loneliness enter into fusion with anxiety. In the last analysis, anxiety and fear of real loneliness merge where they are an anticipation of the fear of the ultimate isolation and separation, of the inconceivable absolute loneliness which is death. Realizing all this, we understand why lonely persons are experienced by others as people with whom "something is vaguely wrong"

—as though “some pariahed aura of untouchability or sickness hovered around them.”

Binswanger comes nearest to a philosophical and psychiatric definition of loneliness when he speaks of it as “naked existence,” “mere existence,” and “naked horror” and when he characterizes lonely people as being “devoid of any interest in any goal.” Tillich describes by implication people whom I would call “lonely” as those in whom “the essentially united experiences of the courage to be as oneself and the courage to be as a part” are split, hence “disintegrated in their isolation.”

An example of severe loneliness comes from the previously mentioned schizophrenic patient who emerged from a severe state of schizophrenic depression. She asked to see me because she wished to tell me about the deep state of hopeless loneliness and subjective isolation which she had had to undergo during her psychotic episodes. Even though the patient was in fine command of the language and came with the intention of talking, she was just as unable to tell me about her loneliness in so many words as are other people who are engulfed in or have gone through a period of real psychotic loneliness. After several futile attempts, she finally burst out saying: “I don’t know why people think of hell as a place where there is heat and where warm fires are burning. That is not hell. Hell is if you are frozen in isolation into a block of ice. That is where I have been.”

Every now and then a creative mental patient succeeds in conveying his experience of essential loneliness artistically after having emerged from it. Mary Jane Ward succeeded in doing so in her novel *The Snake Pit*. The most impressive poetic document on loneliness from a mental patient of which I know has been written by Eithne Tabor, a schizophrenic patient at St. Elizabeths Hospital:

And is there anyone at all?

And is  
There anyone at all?  
I am knocking at the oaken door . . .  
And will it open  
Never now no more  
I am calling, calling to you—  
Don't you hear?  
And is there anyone  
Near?  
And does this empty silence have to be?  
And is there no one there at all  
To answer me?  
I do not know the road—  
I fear to fall  
And is there anyone  
at All?

The recovered catatonic woman patient, the poet on whose treatment history I commented in my paper on the philosophy of mental disorder has told us about the genesis of psychotic loneliness in a poem, "The Disenchanted," which she dedicated to me. She warns me about the difficulties of helping her (and her fellow patients) to emerge from their states of loneliness:

The demented hold love  
In the palm of the hand,  
And let it fall,  
And grind it in the sand.  
They return by darkest night  
To bury it again,  
And hide it forever  
From the sight of man.

In another poem, which she wrote after her recovery, under the title "Empty Lot," she depicts this loneliness symbolically:

No one comes near here  
Morning or night.  
The desolate grasses  
Grow out of sight.  
Only a wild hare  
Strays, then is gone.  
The landlord is silence.  
The tenant is dawn.

All these poems have—seemingly coincidentally—one feature in common regarding their titles: they are not titled "Loneliness," but "Pain," "Empty Lot," "The Disenchanted." Is this because of the well-known general inclination of the word-conscious and word-suspicious schizophrenic to substitute direct communications and the definitions by allusions, symbols, circumlocutions, etc.; or could it be that it is an unconscious expression of the poets' fear of loneliness, which is so great that even naming it is frightening? Remembering our insight that fear of loneliness is the common fate of the people of our Western culture, be they mentally healthy or disturbed, we wonder whether the choice of the titles of these poems is determined by this fear. So much for the artistic expression of loneliness by the people who were there, the psychotics.

There are two sources of verification for our assumption that real loneliness cannot be endured more than temporarily without leading to psychotic developments or that it occurs as an inherent part of mental illness. One stems from the people who develop psychoses in solitary confinement, the other from

psychosis-like states following experimentally induced loneliness.

As to states of solitary confinement, we must differentiate between three groups: The first comprises voluntary confinement, such as may come about in the course of polar expeditions or in the lives of rangers who live at solitary outposts. This may be tolerated without serious emotional disturbances. Courtauld's report on "Living Alone under Polar Conditions" may be mentioned as representative to some degree. The second group consists of people who are, for example, subjected to seafaring isolation. Most of them suffer from symptoms of mental illness. Slocum, for example, as a solitary sailor, developed hallucinations of a "savior" type, a reflection of his inner convictions of survival. The third group comprises those who are subjected to solitary confinement in prisons and concentration camps. They are, of course, seriously threatened by psychotic developments, and they are frequently victims of mental illness.

Christopher Burney was able to write a report about his survival, without mental illness, of eighteen months' solitary confinement by the Germans during World War II, with all its physical and emotional humiliations, intensified by a near-starvation diet. On the few occasions when there was an opportunity for communication, he found that the muscles of his mouth had become stiff and unwilling and that the thoughts and questions he had wanted to express became ridiculous when he turned them into words. "Solitude," he says, "had so far weaned me from the habit of intercourse, even the thin intercourse of speculation, that I could no longer see any relationship with another person unless it were introduced gradually by a long overture of common trivialities." He describes the devices he developed systematically to counteract the danger of becoming mad. He disciplined himself to divide

his lonesome days into fixed periods by spreading the eating of his scarce food over the whole day, despite the craving of his hungry stomach for immediacy. He did the floor of his cell, tried to estimate the size of the bed, table, and toilet seat, and manicured himself daily with a wooden splinter. He brought a snail into his cell, which was company of a sort and, as it were, an emissary from the world of real life.

The intensity of his efforts to remain adjusted in his solitary life may be measured by the fact that at the first opportunity to communicate he did not dare to talk lest he "show himself to be mad . . . if he opened his mouth." He constantly "had to check [his tongue] for fear of uttering some impossibility."

Ellam and Mudie, and Bernicot report similar experiences. "The inner life becomes so vivid and intense that it takes time to readjust to the life among other persons and to reestablish one's inner criteria," says John C. Lilly in his report about these people.

One more remark about Mr. Burney's experiences: I believe his unquestioned matter-of-fact belief in the spiritual validity of the political convictions which were the cause of his imprisonment may have worked as an additional factor which helped him survive his ordeal without becoming mentally sick. That makes his confinement more of a piece with the voluntary isolation of the people of our first group than, for example, with the imprisonment of delinquents who have neither the intelligent determination nor the devotion to a cause which helped Mr. Burney stay mentally sound, even though he was nearly the whole time deprived of the opportunity to work and to receive stimulation by reading. These are the two effective antidotes against the humiliating effects of solitary confinement and against the rise of disintegrating loneliness in the confined ones.

The last new important source of attaining further insight

into the psychodynamics of loneliness has been offered by the very significant experimental work of Donald Hebb and his group at McGill University and that of John C. Lilly at the National Institute of Mental Health. They have brought about marked temporary impairment of emotional reactions, mental activities, and mental health by cutting down the scope of their subjects' physical contact with the outside world through experimental limitations of their perception and decreased variation in their sensory environment, i.e., by exposing their subjects to experimentally created states of physical and emotional isolation. The most striking result of these experiments was the occurrence of primarily visual, but also auditory, kinaesthetic, and somesthetic, hallucinatory experiences. The subjects had insight into the objective unreality of these experiences, but they were nevertheless extremely vivid to them.

Most authors agree, explicitly or implicitly, with the definition of anxiety as "a response to the anticipated loss of love and approval by significant people in one's interpersonal environment." It is my impression that *loneliness* and fear of loneliness, on the one hand, and *anxiety*, on the other, are sometimes used interchangeably in our psychiatric thinking and in our clinical terminology. I would not be surprised if, after learning to differentiate the two dynamisms more sharply from each other, we would see that loneliness in its own right plays a much more significant role in the dynamics of mental disturbance than we have been ready to acknowledge so far. There is good reason for this hypothesis on the basis of my own experiences with patients and on the basis of many reports of my colleagues.

We cannot offer these considerations without wondering about the origin of this mix-up between anxiety and loneliness. Could it be that the mix-up was brought about originally by

the fear of loneliness that psychiatrists share, of course, with their non-professional fellow men? Or is this supposition an oversimplification? Is there another reason for the tacit conspiracy among psychiatrists to accept unchallenged the conceptual merger between loneliness and anxiety? I believe the ever increasing insight of psychiatrists into the enormous psychodynamic significance of anxiety for the understanding of human psychology and psychopathology has brought about such a degree of preoccupation with this one universal emotional experience that it has limited our ability to study adequately other ubiquitous emotional experiments.

At this point I should like to add some psychotherapeutic remarks regarding my experience with lonely patients, some pertaining to the patient, some to the role of the psychotherapist. We have seen that most patients keep their loneliness hidden as a secret from others, many times even from themselves. "They go and see the doctor allegedly for physical treatment, actually because they are lonely," as Otto A. Will puts it in his report about a recorded psychotherapeutic interview. "Miss A. may talk about many things, but not of her most essential problem, her loneliness."

I think this great difficulty which patients have in accepting the awareness of being lonely, and, much more, in admitting it to the therapist in so many words, furnishes an explanation for the relief with which some lonely mental patients respond if the psychiatrist takes the initiative of opening the discussion about it, for example, by offering a sober statement to the effect that he knows about the patient's loneliness. Of course, I do not mean to say that such a statement can be offered to patients before they have overcome at least some fraction of their isolation. This may be accomplished by the doctor's mere presence without therapeutic pressure. The doctor should offer

his presence to lonely patients, first in the spirit of expecting nothing but to be tolerated, then to be accepted simply as some person who is there. The possibility that psychotherapy may be able to do something about the patient's loneliness should, of course, not be verbalized at this point. To offer any such suggestion in the beginning of one's contact with an essentially lonely patient could lend itself only to one of two interpretations in the patient's mind: Either the psychotherapist does not know anything about the inextricable, uncanny quality of his loneliness, or he himself is afraid of it. The mere statements, however, that "we know" and "I am here," put in at the right time by implication or in so many words, may be accepted and may replace the patient's desolate experience of "nobody knows except me." I have tried this device with several patients and have been gratified by its results. It has helped to make an initial dent in the inner loneliness and isolation and has thus become a beneficial turning point in the course of their treatment.

The psychiatrist's specific personal problem in treating lonely patients seems to be that he has to watch for and recognize traces of his own existing loneliness, or fear of loneliness, lest it interfere with his fearless acceptance of manifestations of the patient's loneliness. This holds true, for example, in cases when the psychiatrist, hard as he may try, does not succeed in understanding the meaning of a psychotic communication. He may then feel excluded from a "we-experience" with his patients. Such an exclusion may well evoke in the doctor a sense of loneliness, or fear of loneliness, which makes him anxious.

Last but not least, a word about physical loneliness should be added to our discussion of emotional loneliness. The need, or at least the wish, to have at times physical contact is an all-human phenomenon, innate and consistent from the time when the human leaves the womb and is physically separated

from his mother. Physical and emotional disturbances caused by consistent lack of physical contact have been repeatedly described. Among the people of the middle and upper social strata in our Western culture, physical loneliness has become a specific problem, since this culture is governed by so many obsessional taboos with regard to people's touching one another or having their physical privacy threatened in other ways.

To conclude and summarize, an attempt has been made in this paper to invite the interest of psychiatrists in investigating the psychodynamics of loneliness as a significant, universal emotional experience with far-reaching psychopathological ramifications. Developmental histories might be studied for certain trends specific to persons suffering from real loneliness.

Various types and degrees of loneliness, such as solitude, aloneness, isolation, and real loneliness should be differentiated, including the voluntary and involuntary, the temporary and lasting, types of loneliness.

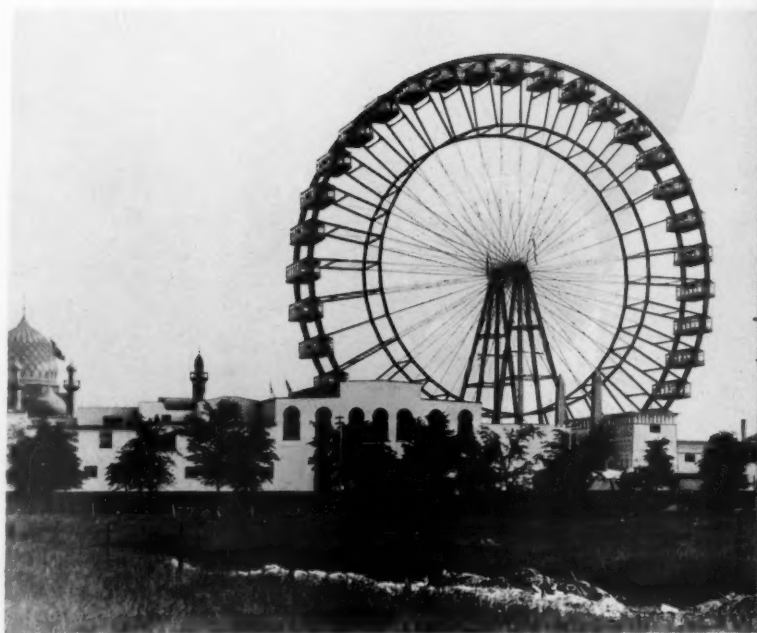
A significant interrelatedness between loneliness and anxiety has been postulated, along with the need for further conceptual and clinical examination of loneliness in its own right and in its relatedness with anxiety.

I suspect that such scrutiny will reveal the essential role of real loneliness, as yet not fully recognized, in the genesis and understanding of the dynamics of mental disorders.

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## Beginnings



**\*midway, n.**

1. (cap.) Orig. a boulevard area connecting Washington and Jackson parks in Chicago, in which the amusement section of the Columbian Exposition of 1893 was situated. In full **Midway Plaisance**.

b. Used allusively with reference to the University of Chicago, which is situated on this Midway.

—*Dictionary of Americanisms*

# Seat of



*"There is a little gland in the brain in which  
the soul exercises its functions more par-  
ticularly than in the other parts . . .  
(and is its) principal seat."  
René Descartes.*

*De Homine Figuris et Latinitate Donatus a  
Florentio Schol. by René Descartes,  
1662. The University of  
Chicago Library.*

In  
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# of the Soul

*By Percival Bailey, Ph.D., M.D.*

IF MAN HAS A SOUL, WHAT AND WHERE IS IT?

AN EMINENT NEUROSURGEON TRACES MAN'S

LONG SEARCH FOR THE ANSWERS.

In the midst of the word he was trying to say,  
In the midst of his laughter and glee,  
He had softly and suddenly vanished away—  
For the Snark was a Boojum, you see.

LEWIS CARROLL

In the beginning of any discussion it is wise to define one's terms. We know, I suppose, what we mean by a "seat," but so many meanings have been given for the term "soul" as to lead some people to doubt its existence. Is there such a thing?

We should not like to set out on a hunt for a snark, only to find, after all our trouble, that we had been searching for a boojum. Since I have never seen a soul and cannot pose as a specialist in the matter, I shall have to depend upon authoritative statements and shall choose only the most impeccable ones.

Pope Pius XI, in his encyclical *Divini Redemptoris*, states: "Eidem siquidem spiritualis atque immortalis animus inest" ("Man has a spiritual and immortal soul"). Since this is one of the fundamental axioms of our Western civilization, we may set out confidently on our quest.

But what is a soul? St. Thomas Aquinas, in his commentary on Aristotle's "Treatise on the Soul," says:

By "soul" we understand that by which a living thing is alive. . . . We must not think of the soul and body as though the body had its own form, making it a body, to which a soul is superadded, making it a living body; but rather that the body gets both its being and its life from the soul. . . . By the powers of the soul we mean the vegetative, the sensitive, the intellectual. . . .

Now why did St. Thomas add this remark about the powers of the soul? Because, he says, "it is usual to distinguish three kinds of soul: vegetative, sensitive, intellectual." He followed Aristotle in maintaining that there is a unitary life-principle. Since any attempt to analyze this principle threatened the faith in personal immortality and gave rise to fierce controversies in the church—such as the Averroist controversy between St. Thomas and Siger of Brabant, which wrecked both men—the problem of the soul was subsequently avoided. As L. F. Ward puts it in his *Psychic Factors of Civilization*:

But the philosophers who were capable of doing this [analyzing the thinking and knowing faculty] studiously avoided turning their attention to the soul, doubtless from a vague apprehension that, should they do so, it might prove capable of analysis, whereby its ontological oneness would be destroyed and the supposed foundations of religion and hopes for the future would be put in jeopardy.

So the guardians of orthodoxy zealously watched for threats which continued to come by indirection. One of these concerned the seat of the soul. What is the relationship of the soul and the body, and why is this problem important? St.

Augustine tells us in his discussion *On the Immortality of the Soul*:

Therefore, since the body, as has been said, subsists through the soul, the soul can in no way be changed into body; for no body is made except by receiving its form from the soul. The soul, if it become body, would become body through losing form, not through receiving it; therefore, it is not possible, unless perhaps the soul be contained in a place and joined locally to the body.

Ay, there's the rub! St. Augustine goes on to conclude:

The soul is present as a whole not only in the entire mass of the body, but also in every least part of the body at the same time.

This conclusion has not been acceptable to many thinkers. The great German philosopher Immanuel Kant wrote: "I would demand, therefore, a rigorous proof of the absurd scholastic dictum 'my soul is entire in my entire body and wholly in each of its parts.' " So speculation continued concerning the seat of the soul.

Perhaps the most famous of the solutions of the problem was arrived at by the French philosopher René Descartes. In his *Passions de l'âme* he wrote: "There is a little gland in the brain in which the soul exercises its functions more particularly than in the other parts . . . [and is its] principal seat."

Since the statement seemed to be contradictory to the scholastic teaching, Descartes was watched malevolently by the suspicious theologians. The Prince of Orange had to order the faculty of the University of Leiden to treat him civilly.

So we come down to the opening of the nineteenth century, when a new phase of the matter was initiated by a Viennese physician, named Franz Josef Gall. In a report to the Institut de France on March 14, 1808, he refers to the speculations of the philosophers in these terms:

The soul is simple; then its seat must be simple also; in consequence there can only be one single place from which and to which

all of the nerves end. It is indisputable, according to Caesalpinus, that there can be only one origin of the nerves since there is only one soul in every individual. Bonnet and Haller, and others, having extended the seat of the soul to the entire capacity of the cerebrum, were already contradicted by the metaphysicians who found it much too vast, not reflecting that, with a little more or a little less space, they did not explain better the nature of a simple soul nor that, according to a remark of van Swieten and Fiedemann, and others, the simplicity of a material point [the ultimate pontifical cell (William James, *Principles of Psychology*, N.Y., Henry Holt & Co., 1890)] where all the sentiments and all the ideas must assemble themselves had already become disputable for this very reason that there could only result confusion and disorder.

We have proven, to the misfortune of these dreams, that the author of nature followed an entirely different plan in creation. In general nothing seems to us more ridiculous for the naturalist, to whom all nature offers itself openly, than to direct his researches and his inductions by such vain and frivolous speculations. If the metaphysician would remain, like us, attached to the facts and restrict his researches to the knowledge of conditions on which they depend, his ideas would run head on into reality and one science would not arrogate to itself the right to prescribe limits to the other. It is a fact and an imprescriptible verity that a sole origin and a sole center are neither real nor possible for all the nerves.

Who was this Franz Josef Gall who brushes aside the scholastic philosophers so arrogantly and demands the facts? He was born into a family of Italian origin at Tiefendorf in the Grand Duchy of Baden in the year 1758. Destined for the priesthood, he found that he did not have the vocation and went into medicine. He obtained his degree in Vienna and entered practice in that city, becoming so successful that he was invited to be the personal physician to the Emperor of Austria. This honor he declined in order to have time for his researches into the pathophysiology of the brain. These were of such a nature as to bring him soon into conflict with the theologians, who dominated the faculties of those days.

The origin of his studies he tells us in the great treatise on the functions of the brain which he began to publish in Paris in 1810:

In my ninth year my parents sent me to one of my uncles who was a curate in the Black Forest. . . . Of some thirty students who were there, when it was a question of reciting by heart I always had to fear those who, in composition obtained no more than even the seventh or tenth place. Two of my new fellow pupils surpassed even my former comrade by their facility to learn by heart. Since both had very large eyes à fleur de tête, we gave them the nickname "bull's eyes." After three years we went to Bruchsal. There again some pupils with bull's eyes caused me chagrin when it was a question of learning by heart. Two years later I went to Strasbourg, and I continued to remark that the students who learned by heart with the most facility were those who had large eyes à fleur de tête, and some among them were mediocre subjects for all the rest. Although I had no sort of preliminary knowledge, I was forced to the idea that eyes so formed were the work of an excellent memory. It was only later that I said to myself, as I have already reported in the preface of the first volume, Why, if the memory manifests itself by an external character, do not all the other faculties also have their visible characters on the outside? And it was this which gave me the first impulse toward my researches, and this was the occasion of all my discoveries.

From this beginning Gall developed a systematic theory of the relationship between the structure of the brain and the psychological faculties. Each distinct psychological faculty was associated with a definite area of the brain and, in persons with a faculty highly developed, that portion of the brain, being hypertrophied, would distort the skull above it, producing an external sign of its location.

It was this system, later named "phrenology," which degenerated into a method of reading character from the bumps on the cranium, against which Gall protested in vain. Gall was interested in the functions of the brain, but brains were diffi-

cult to come by in those days and could not be preserved; he used the crania only as indicators of what was going on in the brain. We know now that Gall's theory of the effect of the brain on the overlying cranium was erroneous, but we should not forget that Gall was a serious student and no charlatan. In time he believed that he had been able to locate in the brain twenty-seven distinct psychological faculties.

News of Gall's studies was spread around, and the curiosity of the populace induced him to give a series of public lectures on them. This was, of course, what the theologians had been waiting for. They denounced him to the emperor as a heretic who was teaching that man has multiple souls.

In vain Gall protested: "Never have I spoken of the nature of the soul, but only of the material conditions by the aid of which it manifested its faculties. I have never touched any dogma of religion." The emperor remembered that Gall had the insolence to refuse to become his personal physician and, on December 24, 1801, issued an edict forbidding Gall to lecture on his investigations.

So Gall, accompanied by his pupil Spurzheim, set off on a journey through Germany. He took his collection of crania with him and lectured before various academies and universities.

It must be remembered that Gall was also a distinguished anatomist. He had developed a new method of dissecting the brain which enabled him to prove that the white matter was fibrous and that these fibers originated in the cortex. He was the first to demonstrate the course of the pyramidal tract and show that it crossed in the bulb. He was the first to demonstrate the origins of the cranial nerves. He showed how to unfold the convolutions and display the buried portions of the cortex. His anatomical demonstrations were enthusiastically admired by the German neurologists.

The ultimate goal of Gall in his wanderings was Paris, a revolutionary city which had enthroned the god of reason. There, if anywhere, he would be free to pursue his investigations. Gall arrived in Paris in 1807 and immediately got in touch with the leaders of the French Academy. At first he was well received, but soon the atmosphere changed. Napoleon had been tipped off about this godless physician, an enemy of religion, morals, and public order.

We have no time to go into all the ramifications of the controversies between Gall and his opponents. . . . It is enough for our present purpose to say that Gall was again forbidden to teach his doctrines. On his deathbed Napoleon told his physician Antommarchi that the best thing he had done in his life was to stop Gall from teaching. Fortunately, he was not forbidden to write. In 1810 appeared the first volume of his great work on the anatomy and physiology of the nervous system in general and of the brain in particular. It was completed in 1819. In 1817 he was excommunicated by Pius VII. His only remark was: "In studying the works of God, I do not think I have done any wrong."

However wrong in his conclusions at times, Gall was a scientist by temperament. His chart of the brain, even in his great work, left some parts of the cortex bare because he did not feel that he had enough evidence to assign functions to them. Spurzheim, on the contrary, had a systematic Teutonic mind and could not bear to leave the system incomplete, so he filled in the empty spaces with eight more functions.

Gall died in Paris in 1828 and his work has been perverted, but his influence persists. He is an excellent example of his own dictum: "The authority of Plato proves only one thing, that men who enjoy a great name should more than others guard themselves against spreading hazardous ideas, for however erroneous they may be, they will be repeated for cen-

turies." So it was with Gall. In Paris he was forbidden to teach, but many of his ideas persisted—the erroneous guesses with the correct ones. We soon find them cropping up in the neurological world of Paris.

On April 18, 1861, a young surgeon named Paul Broca made a famous report to the anthropological society. Shortly before, he had been appointed surgeon to the Bicêtre, a hospice for old men outside Paris. There he found a man who had lost his speech but understood all that was said to him. Broca presented him and concluded that here was the ideal case to prove whether Gall's theory of the localization in the brain was correct. The patient, who was old, died shortly thereafter. Broca brought his brain to the anthropological society and demonstrated a softening in the left third frontal convolution of the cerebrum. Thus was born the dogma of the localization of the function of speech in the foot of the left third frontal convolution, called "Broca's convolution" to this day.

Well, "it ain't necessarily so." In 1906, Pierre Marie, physician to the hospice Bicêtre, published a series of papers in the *Semaine médicale* which produced an uproar that has not yet died down completely. He told me how, after this, his own interns avoided him as though he had a pestilence; he had dared to attack the dogma of Broca's speech-center. Luckily, the brain of Broca's patient was preserved and deposited in the Musée Dupuytren, where it may be examined by anyone. I have seen it there; the lesion is clearly found to include not only the foot of the left third frontal convolution but also a much vaster area that includes the parietal operculum [upper wall of the crease between the parietals and the temporal cortex] and the superior temporal gyrus [coil of gray matter just above the ear]. How deep the lesion goes no one knows because the brain has never been dissected.

How, then, did Broca come to the conclusion that the small

part of the softening in the left third frontal convolution caused the loss of speech? Because his teacher Bouillaud, a disciple of Gall, maintained that the function of speech resided in the frontal lobes, and this convolution was the part of the frontal lobe most seriously involved by the lesion.

A long search now began for localized lesions which were associated with restricted psychological defects. We have no time to review this vast literature, which demonstrates over and over again how difficult it is to establish the facts in such cases. But we should mention other lines of search which strengthened the dogma. For example, in 1782 an Italian medical student named Gennari had pointed out an area in the occipital [back end of the brain] region of the cortex which had a structure different from that of the remainder of the cortex. Even with the naked eye a broad white line can be seen in that region, which is called the "stria Gennari," and the "striate area." It is known now that visual impulses arrive at the cortex in this striate area.

The significance of his simple anatomical discovery was revolutionary. Gall had to depend on the theory that an unusual development of some function would be accompanied by a hypertrophy of the corresponding anatomical area. He recognized that an increased function might theoretically occur without hypertrophy but had no means of recognizing it. Now here was another way of recognizing functional areas in the cortex.

There now began a search for areas in the cortex with special structure, first with the naked eye by Baillarger and Elliot Smith, later with the aid of the microscope. The spirit of Spurzheim soon began cropping up again. Certain areas were quickly found and have been confirmed by all subsequent observers. The striate area has already been mentioned. On the lateral surface was found a zone running from the medial

longitudinal fissure downward and anteriorly to the lateral fissure which contained huge pyramidal nerve cells, now called "Betz cells" after the German physician in the service of the Russian railways who first described them. Other zones of special structure were also found.

Soon systematic attempts were made in many laboratories to produce maps showing the extents of the various areas. Occasionally the subdivisions arrived at were somewhat gratuitous, a difficulty which became more evident as subsequent investigators produced maps which were much at variance with each other. Also, more and more areas were distinguished until the number reached into the hundreds. It finally became obvious that this minute subdivision of the cortex was meaningless because no one could distinguish hundreds of psychological functions to associate with these parcelings, most of which had structures so nearly alike that serious observers disputed their boundaries. It was evident that the quest had been pushed beyond the competence of the objective criteria available. The attempt to verify, by microscopic methods, Gall's mosaic of organs in the cerebral cortex had failed.

Meanwhile, evidence of a different nature had accumulated, according to legend (W. G. Walter, *The Living Brain*. N.Y., W. W. Norton & Co., 1953), in the following manner:

Two medical officers of the Prussian army, wandering through the stricken field of Sedan, had the brilliant if ghoulish notion to test the effect of the Galvanic current on the exposed brains of some of the casualties. These pioneers of 1870, Fritsch and Hitzig, found that when certain areas at the side of the brain were stimulated by the current, movements took place in the opposite side of the body.

This story, I am quite persuaded, is apocryphal. I have never been able to find any authority for it. *Si non e vero e ben trovato*. What actually happened was much more prosaic. Hitzig speaks of only two patients. The first he saw in a gar-

rison hospital in Berlin in 1866. The patient was wounded in the forehead, and Hitzig cites him as an example that serious wounds of the brain may not cause either motor or sensory symptoms. The second he saw in a military hospital at Nancy in 1870, five days after he was wounded. Hitzig tells how he went through the railroad cars that were carrying wounded and sought out those who had bandaged heads—which turned out to be mostly mumps or carious teeth. But one case repaid him for all his trouble. He was a French soldier who had been wounded in the right side of the head and had convulsions in the left face. At death an abscess in the lower part of the right precentral gyrus was found. The observation of this case stimulated Hitzig, who was already interested in the effects of galvanic stimulation of the nervous system, to undertake further experimental studies on the brain of dogs, which he published in a famous monograph in 1874. As a result of these experiments he concluded:

It follows from the sum of all our researches that in no way, as Flourens and most people after him have believed, is the soul a sort of total function of the whole of the brain, whose manner of expression one could abolish in toto but not in its separate parts by mechanical means, but that more certainly separate functions of the soul, probably all, at their entry into matter or at their origin out of the same are referred to circumscribed centers of the cerebral cortex.

When Hitzig was discharged from the army, he began to experiment on dogs. Since he had no laboratory, according to legend he operated on them at home, and his wife took care of them in her bedroom. *Her* bedroom, mind you; women knew their place in those days. This story is also probably apocryphal; at any rate, Hitzig was able to demonstrate that, with an ordinary faradic electrical current, movements could be elicited from a localized area in the frontal lobe of the dog. This set off an epoch in which investigators all over the world

were stimulating the brains of animals, searching for the "motor" area, even of man.

One of the most assiduous of the stimulators was the English surgeon Victor Horsley. He had an extensive surgical practice but found time for a lot of very good physiological investigation. He was a man of peculiar personality, always given to tremendous enthusiasms for the most varied causes besides physiological experimentation. He stumped England for woman suffrage, led anti-tobacco campaigns, and was especially persistent in his crusade against the antivivisectionists. In the pursuit of these causes he was not always careful of the rights of either friend or foe.

One morning a learned experimental psychologist, C. S. Myers, was lecturing at the University of London when Horsley rushed in panting, "Myers, Myers, the camel's dead." Myers, who knew Horsley well, asked, "Horsley, did you operate on my camel?" "Yes," replied Horsley, "Who could do it better than I?" "But," protested Myers, "it was my camel." It seems that Myers was making some sort of psychological tests on this camel, and Horsley knew that a request for permission to stimulate its motor cortex would be refused, so he decided to do it secretly and tell Myers about it afterward. Alas! the camel absorbed ether like water and did not recover. This and many other such stories about Horsley are not to be found in his official biography. They were told me by my master, Harvey Cushing. This one I repeat to show what passion this search for the localization of function in the brain has been able to arouse.

The first electric stimulation of the human brain was made by Robert Bartholow, professor of materia medica and therapeutics and of clinical medicine at the Medical College of Ohio. Over the Appalachians had poured a hardy, enterprising breed, and their physicians were of their kind. McDowell, who

first removed an ovarian cyst, was one. Not only were they independent and venturesome, but they kept abreast of the latest developments of European medicine. Bartholow, in reporting his experimental investigations in 1874, writes:

The researches recently made in animals on the function of the brain, although of great importance, need to be complemented by similar investigations, or by corresponding pathological alterations, in the human brain. Notwithstanding the general similarity in primates, special differences of great importance are very apparent.

Bartholow had a servant girl named Mary Rafferty, who had a huge ulcer of the scalp which had also involved the cranium. The brain was exposed and pulsating over an area about 2 inches in diameter. Bartholow proceeded to implant insulated needle electrodes in the left cerebral hemisphere. When he turned on the electrical current, Mary had a convulsion beginning on the right side of the body; she died a few days later in convulsions. Bartholow secured the brain and showed that the needles had been inserted into the gyrus centralis posterior [crown of the brain]. His report of the case to the local medical society ends with the statement: "It has seemed to me most desirable to present the facts as I observed them, without comment."

According to tradition, the medical society commented eloquently by promptly expelling him for unjustifiable experimentation on a human being. Since then, his experiment has been repeated hundreds of times in the operating room. It is an indispensable method of orienting one's self on the exposed brain.

In these and other ways our knowledge of the brain increased. There is now general agreement as to the areas where visual, auditory, and tactual impulse reach the cerebral cortex, and these areas are called the "visual," "auditory," and "somesthetic" cortices. They are constructed of unusually concen-

trated small cells called "granules" so that one speaks of them as "granulose" or "koniocortices" (Gr. *konio*, "dust"). There is also an accepted area from which muscular movements can be elicited by electrical stimulation, and this area tends to be agranulose. Concerning the vast intermediate reaches of the cortex, however, there is no consensus, and all attempts to localize more general functions, such as memory or intelligence, have ended in frustration and controversy.

What of the location of the soul? The soul is somewhat out of vogue at present. Since no one has ever seen a soul and definitions such as we quoted from St. Thomas seem difficult to subject to experimental proof, experimenters have tended to shy away from a concept which has so many and varied metaphysical connotations. Is it possible to get at the problem by indirection? Perhaps.

Let us go back and search again in the philosophers. According to Hollander, St. Augustine offers the following clue: "We know and attain the soul through consciousness." It is apparent from Question LXX of the *Summa theologiae* that St. Thomas would not have quarreled with this statement.

One might also compare the statement of Ananda in the Suringama Sutra: "If I should give up my perceptions and my consciousness, there would be nothing left that could be regarded as my self or as my soul."

And, as G. H. Mead notes: "There is a persistent tendency among present-day psychologists to use consciousness as the older rationalistic psychology used the soul."

We do not wish to enter into a discussion of the dozen or more senses in which the word "consciousness" is used. For our purposes it will suffice to use the common-sense definition—awareness of one's self and of one's surroundings. There are many ways which we all use to judge the degree of activity of this function.

Well, how can we attack the problem of the localization of consciousness as thus defined? The method generally used is to destroy various parts of the nervous system. The portion destroyed will no longer be able to function, and one infers from the subsequent absence of some type of functioning that it must have employed the missing part.

For example, a cat whose spinal cord is transected in the mid-cervical region will, except for the paralysis of its hind limbs, comport itself like a normal cat (1, Fig. 1). If, now, a

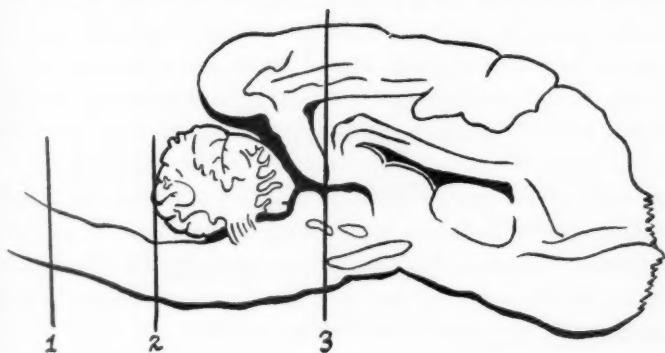


FIG. 1.—Sagittal section of cat's brain showing various transections of brain stem (redrawn after Fulton).

second transection is made at the junction of the cord with the bulb (2, Fig. 1), the behavior of the head is little different from that of an intact cat: the eyes are open, winking membranes retracted, the globes centered, the eyes follow moving objects, the ears are oriented to noises, and the eyes wink if menaced. The head makes an appearance of alertness and attention remains placid and gives no evidence of emotional reaction, making somewhat the impression of the Cheshire cat in *Alice in Wonderland*. The electroencephalogram is normal. If the brain stem is transected just behind the oculomotor

nuclei (3, Fig. 1), the cat passes into a state resembling sleep; the eyes are turned downward and inward, and the pupils are maximally constricted; the electroencephalogram also resembles that of sleep; and the cat can be aroused only by strong olfactory stimulation.

If the surgeon begins at the anterior extremity of the central nervous system and removes the frontal lobes of the brain, a cat will behave much like a normal cat except that it will follow any moving object as though it were a magnet. If the entire cerebral cortex is removed from a cat, it sits usually inactive, curls up, dozes, is little disturbed by sounds but can be roused by odors; it walks around, feeds when the food is located, reacts to rubbing or stroking, attends to noises of high pitch and low intensity, fights if its nose is tapped, and may show signs of fear. If the remainder of the cerebrum is removed anterior to the hypothalamus, the animal is subject to attacks known as "sham rage," in which the pupils dilate, the hair stands on end, the heart rate increases, the blood pressure rises, salivation occurs, and there are other signs of generalized activity of the sympathetic nervous system.

It is evident that a certain degree of awareness remains when all the central nervous system of a cat is removed except the brain stem, which is the segmental part of the brain from the optic chiasm to the posterior end of the bulb [posterior part of the brain stem]. It would be impossible to remove the brain stem, but lesions can be made in various parts of it by means of an ingenious machine called a "stereotaxic apparatus" invented by R. H. Clarke. An astonishing series of alterations of behavior can thus be produced in cats with brains otherwise intact. If a small lesion is made in the posterior part of the hypothalamus [the part of the brain just above the pituitary gland] (1, Fig. 2), the cat is transformed into a snarling, savage, intractable brute. A similar lesion a few millimeters farther

posteriorly (4, Fig. 2), leaves another cat motionless except for an occasional twitch of the tip of the tail but as malleable as though it were made of wax—a state known as “*flexibilitas cerea*.” A similar lesion a few millimeters still farther back and below in the interpeduncular nucleus [the peduncles are bands of white matter at the base of the brain] (3, Fig. 2), and the third cat will move forward continuously, turning aside for no

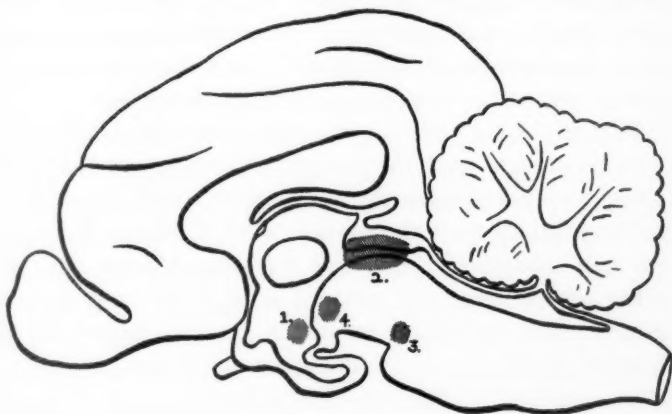


FIG. 2.—Median section of cat's brain showing lesions made with stereotaxic instrument.

obstacle, attending to nothing around or in front of it—a state known as “*obstinate progression*.” If the lesion is placed higher around the aqueduct of the mid-brain (2, Fig. 2), a fourth cat is as inert as a rag, makes no spontaneous movement, will not cry when pinched, but will twitch its whiskers if they are flicked. This state is known as “*akinetic mutism*.”

All these experiments indicate the truth of Kant's dictum that “there are an infinite number of degrees of consciousness even to disappearance,” if one may judge by the behavior of a cat. But how is it with man? A man has a dubious advantage

over a cat in that he can give us information (also misinformation) of his condition by speech.

Of course, it is impossible to proceed, as in the case of the cat, deliberately to remove various parts of the nervous system of man in order to test our hypothesis, but nature often produces experiments for us from which we may profit to obtain information. Thus in wartime many young men have had the spinal cord transected by a bullet. We are now able to keep them alive for years, even if they are completely paralyzed and insensitive from the neck downward. The isolated head is completely alert and as aware as that of an intact person.

Wounds of the brain are not infrequent, especially in wartime. We might note the famous case of Phineas Gage. In 1850 he was tamping powder into a hole in a rock, preparatory to blowing it up, when the powder exploded, driving the tamping iron through his head. The rod entered below the left malar [cheek] bone and emerged through the right frontal bone. He was unconscious for an hour but then recovered and lived for twelve years. His skull and tamping iron are now in the museum of the Harvard Medical School.

In recent years numerous patients have had the frontal lobes of their brains detached or removed as a means of treating their mental disorders. This operation is known as "lobotomy." It was first performed in Portugal by Egas Moniz and Almeida Lima but has since been adopted all over the world. Patients, after this operation, are aware of everything but lose their anxiety and have various disturbances of behavior. P. M. Tow, a London physician, writes:

The higher mental processes suffer most; and one might say that it is the upper limit or the discriminative aspect of psychological function which is blunted. The conclusion would be that after loss of the prefrontal area there is a generalized impairment of mental activity, and that this impairment is greater in the higher or more peculiarly human functions than in others.

One might compare Gall's list of functions peculiar to man: sagacity, metaphysical spirit, caustic spirit (wit), poetic talent, benevolence, mimicry, linguistics, and veneration.

The temporal lobes of the brain have been removed as a treatment for psychomotor epilepsy. No disturbance of awareness results, but, if bilateral, again certain disturbances of behavior may result, such as "(1) loss of recognition of people, even close relatives; (2) considerable changes in emotional behavior (loss of fear and rage reactions); (3) increased sexual activity in the form of self-abuse and homosexual tendencies; (4) remarkable changes in dietary habits (bulimia); (5) 'hypermetamorphosis'; and (6) serious deficiency of memory." [From *Neurology*; 5:373, 1955, H. Terzian and G. dalle Ore.]

Similarly, the parietal or occipital lobes may be removed or destroyed by gunshot wounds, with varying defects resulting, but awareness remains largely intact. It is different, however, when the entire cerebral cortex is destroyed, as sometimes happens from asphyxia. In this case, although such a patient has continued to breathe spontaneously for as long as eighteen months, he never makes any sign of awareness. In this respect he differs from a cat, which is evidence that many functions carried on in the cat by the deeper regions of the brain have, in man, been moved up into the cerebral cortex.

Nevertheless, the brain stem in man is still vitally important for consciousness. Small lesions in that restricted area can produce the conditions which we have described in the cat and many more besides. The great epidemic of encephalitis which followed World War I produced in the acute stage such symptoms as lethargy, somnolence, and coma; in the chronic stage, reversal of the sleep rhythm, abusiveness, assaultiveness, impudence, hyperactivity, vagrancy, sexual perversions, obscenity, lying, and larceny. The inflammatory lesions of epidemic encephalitis were found predominantly in the brain stem.

Traumatic lesions of the brain stem are frequent. They are accompanied by all degrees of clouding of consciousness. I have seen two such patients remain in a state of akinetic mutism without spontaneous movement for over 18 months, being nourished by stomach tube. After that time they began to show some signs of awareness. These two patients are still alive, one 26 years later, the other over 30 years. Neither can speak, and both can make only gross writhing movements of their extremities.

In spite of a vast amount of such investigation, the seat of consciousness still eludes us, and, if we accept that function as the indicator, so does the seat of the soul. If St. Augustine were alive today, he could rejoice that after so much travail there still is no evidence that the soul is "contained in a place and joined to the body locally." Perhaps our whole quest was mere foolishness. Kant said that the soul is determinable only in time:

The solution demanded, that of the problem of the seat of the soul, which has been addressed to the metaphysicians, leads to an impossible quantity ( $\sqrt{-2}$ ). To him who undertakes to give it one we may say with Terence: "Incerta haec si tu postules ratione certa facere, nihilo plus agas, quam si des operam ut con ratione insanias" ["If you insist on making these unpredictable actions subject to reason, you do no more than as if you tried to go mad reasonably"].

Nor have we proved that our snark is only a boojum. As Gall protested:

We repeat again that we know nothing and that we wish to know nothing concerning the essence of matter nor that of the soul; that we renounce forever researches which would have for their objective understanding their reciprocal union; and, finally, that this sort of knowledge is not needed to clarify our researches on the material conditions of their functions.

This attitude has been stated repeatedly by investigators. Thus, the Russian, I. Setchenoff [writing in 1863]:

Let us penetrate, dear reader, into the world of phenomena engendered by the cerebral activity. It is customary to say that it embraces the entire psychic life and there is no man today who, with more or less reserve, does not hold that proposition to be true: only some, considering the brain to be the organ of the soul, distinguish in reality the latter from the former, while others regard the soul as a pure product of cerebral activity. This is the unique question which divides the two schools. Not being philosophers, we shall leave that question aside. For us, as for all physiologists, it suffices that the brain be the organ of the soul; that is to say, a mechanism which, set in motion by whatever cause, gives rise to that series of external phenomena by which the psychic activity is characterized.

"The relations of the mental to physical states," said Sigmund Freud to J. Wortis, "that is the problem for the future." And Sherrington demands: "But, indeed, what right have we to conjoin mental experiences with physiological? No scientific right; only the right of what Keats, with that superlative Shakespearian gift of his, dubbed 'busy common sense.' The right which practical life, naïve and shrewd, often exercises." This is the problem to which Franz Josef Gall devoted his life. He put it thus:

The flattering hope of putting myself in a state to determine one day the relation of the intellectual faculties with the organism was an encouragement too powerful that I should not form the resolution to continue my researches until I had obtained my goal or was convinced of the impossibility of attaining it.

This hope still lures us on.

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# Greek T

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By Moses Hadas

# Tragedy

A MODERN IMAGE

*Because he shares a similar view  
on the nature of man,  
today's theatre-goer is Greek tragedy's  
most appreciative audience.*

Greek tragedy is more adequately appreciated in our time than it has ever before been during the Christian era. The intellectual and artistic attainments of the Greeks have of course always been admired, at several periods, as notably in the second and fifteenth and early nineteenth centuries, with enthusiasm bordering on adulation, and tragedy has frequently been regarded as the supreme spiritual achievement of the Greeks. But almost always the vogue of Greek tragedy has been based not upon an appreciation of its essence but on incidentals or even distortions. Most often it has been celebrated as a paradigm of high art, with astonishing disregard of its meaning. Frequently it has been used as a text for wholly un-Greek sermons. Sometimes it has been exploited for antiquarian or anthropological research.

All of these are worthy uses, and each has contributed to our understanding of tragedy. The lesson that the Romans or the

Humanists learned, that drama could be a noble art worthy of the serious artist's best efforts and of the audience's respectful attention, was revolutionary and enduring. The realization that the tragic poets performed something like the function of Old Testament prophets pointed to the importance of tragedy for its profound theological and moral probing. And the researches of the antiquaries showed that the premises of the probing and its objectives were only analogous to, not identical with, the aims of Old Testament prophecy. But any single avenue of approach yields a distorted view, which is not wholly corrected by combining the several approaches; the product remains a museum exhibit, interesting and educational to spectators, but not a vehicle through which a great poet communicates meaningfully to an audience. The spectators, as contrasted with the audience, remain insulated in their own stronghold, and subject what is presented to them to the gauge of their own unquestioned beliefs and standards. The unconscious application of a modern and therefore alien gauge is evident in the older verse translations; all seem to make English drama the ideal and measure their success by what amounts to remoteness from the Greek.

We are better able to receive Greek tragedy as an audience and with something of the meaning it had for its original audience, not because we are cleverer or more perspicacious, but because our own views of the nature of man, of the premises which govern the relations of man to man and man to external authority, and our own poetic techniques and aims approach the norms of classical Greece more nearly than did any between their age and our own. The problems posed in tragedy are not then hypotheses for speculation—however absorbing and adult a pastime such speculation may be—but recognizable and urgent within the purview of our own moral sphere and hence a genuine extension of living experience. For enlarging

experience in a significant direction Greek tragedy remains unique and indispensable because it premises a view of man basically different from that premised in subsequent drama. Indeed, if we define tragedy by Greek conceptions of it there can be no such thing as Christian tragedy.

Its essential divergence from the Christian view is the major obstacle to our understanding of Greek tragedy, and therefore the matter on which the modern reader must first be informed. The obstacle is almost insuperable because two millennia of the Judaeo-Christian tradition has made it almost impossible for us to think of religion as other than monotheistic. Individual faith has nothing to do with the case; what the atheist disbelieves in is one God, not many. If we limit our use of the word religion to our ordinary conception of it we should not use it of the Greeks at all. And yet supernatural personages and effects are far more prominent and pervasive in Greek tragedy than in Christian, and cannot be brushed aside as mere ornament. It is with what is beyond human control that man must come to terms in order to make life possible.

Man's mode of shaping his life is by choosing among the courses available to him. Life is a succession of choices. Most are trivial, as between styles of clothing or dining; when they are made by large personages and involve large issues we have the basis of tragedy. Where there is a sole deity who is concerned for human conduct and universally acknowledged right and wrong the choice open to the human agent is restricted; he chooses well and prospers as a hero should, or ill, and is crushed as a villain deserves to be. In Greek tragedy the alternatives are not labeled, for each has a valid sanction and power to punish; no choice the agent makes is plainly villainous, and yet the sanction he rejects can exact punishment. Tragedy is thus implicit in the human condition, but the scope of the human agent is enormously enlarged.

Rival sanctions are explicit in plays of Aeschylus where the human agent must choose between the primitive chthonic and enlightened Olympian strands of Greek religion. In the *Suppliants* the king, through no shortcoming of his own, must choose between offending the chthonians by denying asylum to the Danaids, who have proven their claim of blood-kinship, and offending Appollonian order by granting asylum and so incurring the danger of war against the powerful Egyptians. In the *Oresteia* Orestes must choose between offending Appollonian order by failing to avenge the murder of a king by a woman and committing the supreme chthonian crime of matricide. Except that they employ the idiom of myth instead of our language of rational analysis these plays are strikingly modern. We too must choose between obeying the impulses of blood or the demands of society, and render satisfaction for the sanction we reject to either policeman or psychiatrist. And we too strive to sublimate the primitive element and eventually to reconcile the rival claims as Aeschylus did in the *Eumenides*.

If neither sanction is absolute then neither corresponds to human standards of morality; there are no prescribed codes of conduct with pains and penalties specified. The plays of Sophocles do indeed illustrate the power of gods over mortals and the danger of ignoring that power; and critics concerned with imposing human standards of morality upon the gods seek to show, following Aristotle's false lead, that the victim deserved his doom because of some tragic flaw. But the doom of an Oedipus or an Antigone is so disproportionate to their offences as to outrage decent moral sense. Indeed, every discerning reader feels that the suffering of these heroes is victory, not defeat, that their persistence in the course they thought right was admirable and that its rightness was not affected by divine disapproval.

The anomaly is resolved if we conceive, as did the Greeks,

of the spheres of gods and of men as distinct. The gods are powerful as gravity or electricity are powerful and as independent of human morality. A prudent man will avoid a falling boulder or a charged wire, but it is absurd to say that electrocution is a just punishment for disobeying "Don't touch!" How the gods behave is their own affair and not reducible to human standards. How a man behaves is his affair, and if his proper behavior as a man is interfered with by an external force not amenable to rational calculation tragedy ensues. Tragedy of this sort is not a moralizing tableau of virtue triumphant and vice crushed nor yet an indulgence in sentimental pity but an instrument of adult moral edification.

Euripides too keeps the spheres of the human and the divine apart, and draws practical moral doctrine from the distinction. Plays like the *Hippolytus* or the *Bacchae* prove that he is not, as has often been alleged, a rationalist, but they also prove that the gods follow their own, not human, patterns of behavior. What the gods do to man he must bear, but too often he compounds the tragedy of life by not allowing his humanity its proper scope. From the Sophists Euripides learned to apply the gauge of *physis* ("nature") and *nemos* ("convention") to all human institutions. What belongs to *physis* is unalterable; what belongs to *nemos* is subject to change, and should be changed if it proves oppressive. It is the mistaken notion that women or foreigners or the illegitimate are inferior by *nature* that causes tragedy in the *Medea* or the *Andromache* or the *Hippolytus*. A regular technique of Euripides, illustrated brilliantly in the *Electra*, is to examine some heroic myth by contemporary standards and so to demonstrate how antiquated *nomoi* can distort humanity. By portraying men as they are rather than as they should be according to the heroic ideal Euripides prepared the ground for the comedy of manners, which has been the central strand in European drama to this

day. But no more than his predecessors can Euripides be called a realist; like them he retains the stylized form characteristic of Greek tragedy.

Their stylization, which is doubtless a function of their religious association, is another aspect of Greek plays which readers accustomed to modern stage conventions will find strange. Our drama is in fact play—actors impersonate some encounter of ordinary persons in a familiar kind of room, except that one wall is cut away so that a crowd of eavesdroppers lurking in a pit beyond the footlights can spy upon them. The Greek play made no concession to verisimilitude of this kind; there was no attempt to represent ordinary people in an ordinary setting. Costume was wholly unlike ordinary wear, dialogue was in verse, and periodically a group of fifteen elderly gentlemen might spring into a song and dance to express their inmost emotions and speculations. The audience was not beguiled into thinking that they had stumbled upon a private encounter between Agamemnon and Clytemnestra; they knew that what they were witnessing was a distillation of the poet's mind. The purest distillation of all was in the choral lyrics—which are at the farthest remove from the norms of ordinary discourse.

That is why it is wrong to look upon the tragedies as religious tracts or political pamphlets. To do so is tempting and indeed useful, for their doctrine is significant and can be apprehended in translation and without special preparation; but poetry has a function beyond making doctrine palatable, and the reader who impatiently skims the lyrics in order to arrive at a crystalized formulation is forfeiting tragedy's supreme excellence. It is through his lyricism that the tragic poet, and Aeschylus in particular, gives utterance to his most pregnant conceptions.

## Protest after a Dream

*So what did old Diogenes find  
When he took his lantern in his hand  
And looked everywhere for a true man?*

You tell me, for I  
Am sick of tales  
And books; I do not find  
Your wide Dantean seas,  
Your black, shimmering Alpine  
Skies of De Rougemont;  
I have not exchanged  
For an Easter plain Raskolnikov's  
Narrowing cell—Good God  
If they cannot make us well, as it looks,  
What the hell good are our books?

If Sophocles offered eggs  
To a sacred snake  
Or led the victor's dance  
Naked after Salamis  
He did more in this  
Than in his poems, for poems  
Are dreams and dreams are wants:  
Our wants are what we are  
And what we are is not  
The man we hoped, it seems, so what  
The hell good are our dreams?

JOHN LOGAN

## Lines to His Son on Reaching Adolescence

I've always thought Polonius a dry  
And senile fop, fool to those he didn't love  
Though he had given life to them as father—  
To his beautiful young boy and beautiful  
Young daughter; and loathed Augustine's  
Lecherous old man who noticed that his son  
Naked at his bath, was growing up  
And told his wife a dirty joke. But  
I have given my own life to you my son  
Remembering my fear, my joy and unbelief  
(And my disgust) when I saw you monkey  
Blue and blooded, shrouded with the light down  
Of the new born, the cord of flesh  
That held you to my wife cut free from her  
And from my own remote body,  
And I could fill you up with epithets  
Like Ophelia's father, full of warnings,  
For I have learned what we must avoid  
And what must choose and how to be of use.  
My father never taught me anything  
I needed for myself. It's no excuse,  
For what he might have said I think  
I would refuse, and besides (is it despair  
I reach?) I feel we learn too late to teach.  
And like Augustine's dad I have watched you bathe  
Have seen as my own hair begins to fall

The fair gold beard upon your genital  
That soon will flow with seed  
And swell with love and pain (I almost add  
Again). I cannot say to you whether  
In a voice steady or unsteady, ah Christ  
Please wait your father isn't ready.  
You cannot wait, as he could not.  
But for both our sakes I ask you, wrestle  
Manfully against the ancient curse of snakes,  
The bitter mystery of love, and learn to bear  
The burden of the tenderness  
That is hid in us. Oh you cannot  
Spare yourself the sadness of Hippolytus  
Whom the thought of Phaedra  
Turned from his beloved horse and sow,  
My son, the arrow of my quiver,  
The apple of my eye, but you can save your father  
The awful agony of Laocoon  
Who could not stop the ruin of his son.  
And as I can I will help you with my love.  
Last I warn you, as Polonius,  
Yet not as him, from now on I will not plead  
As I have always done, for sons  
Against their fathers who have wronged them.  
I plead instead for us  
Against the sons we hoped we would not hurt.

JOHN LOGAN

# The Ax That Cut the C

By ALFRED MÉTRAUX

The word "revolution" has acquired, of recent years, a very broad meaning. It has been applied to any innovation entailing substantial economic and social change.

For example, the term "neolithic revolution" is currently used to designate the transition from a hunting and gathering the fruits of the soil type of economy to the relatively sedentary life of the agriculturist.

The acquisition of metal—copper, bronze, and, later, iron—also gave rise to all kinds of technical as well as social transformations. The patient researches of archeologists enable us to assess the impact of this "revolution of metal" which so profoundly altered the life of our ancestors. We have a general notion of the social changes that resulted from it, thanks to our knowledge of such things as the layout of villages or cities and the details of funeral accoutrements. Here again ethnology comes to the aid of archeology.

The chain reaction produced by the sudden appearance of metal in the society of the Stone Age can be studied, described, and evaluated in the midst of the twentieth century. Although the conditions under which the transition from one era to

What happened to stone-age man's social structure  
when he discovered metal?

The radical effects can still be observed  
among today's primitive tribes.

# n Centuries



*A Siriono Indian teaches his son how to use the long bow. These photos, the only ones ever taken of the Sirionos, are by anthropologist Allan R. Holmberg, the first white man to penetrate this remote area of Bolivia.*

another is effectuated are not the same as those that prehistory allows us to glimpse, the attitude of our neolithic contemporaries could not have been essentially different from that of the men who cleared our forests. The fortunate or unfortunate effects resulting from the possession of some steel axes are a good illustration of the influence of technology upon the other aspects of a culture; far better than any vague demonstration, they prove the close ties which unite the elements that make up a culture.

One can get a precise idea of working conditions during the Stone Age by examining the isolated groups which even today, in South America, New Guinea, and Australia, employ a tool that corresponds to the neolith. In fact, most of the peoples who evidence such enthusiasm for iron tools live in tropical regions and practice an itinerant cultivation under the broiling sun.

Contrary to popular belief, tropical regions are not generally propitious for agriculture, because their soil is notoriously poor. The chemical substances upon which their fertility depends are washed away by rains or destroyed by high temperatures or by insects. Only the soil wrested from forests, enriched by the accumulation of plant detritus, offers a layer of humus favorable for the growth of tubers and grain—the staple of the native diet. But, once this soil has been exposed to inclemency and to the sun, it rapidly loses its richness, and, after two or three years, new clearings have to be made.

In the tropics, to live is to conquer the forest. The native is poorly equipped for this endless struggle because the stone ax, his main agricultural tool, is far from perfect. It hammers and hacks at fibers instead of splitting them. Moreover, the blade quickly becomes blunted or breaks, which is amply proved by the number of fragments amassed in ancient gardens.

A vast area of the Amazon, of alluvial origin, is devoid of

stone, and, in order to procure it, the Indians are obliged to organize veritable expeditions. The task of polishing the stone, while not as protracted as it was once thought to be, does, nevertheless, take several days. The ax has then to be firmly fitted to the handle. This requires skill, as well as the gathering of other needed materials, such as fibers, resin, and wax.

When the natives grapple with a giant forest tree, they simplify their task by burning the trunk with a slow fire. This enables them to cut the carbonized wood more easily. Moreover, the trees to be felled are selected in such a way that in falling they bring down other, less resistant ones. The underbrush is cleared out either by clubbing or by breaking shrubbery and lianas with the hands.

A simple steel ax accomplishes the same task with the greatest speed. The possessor of this marvelous tool is not only spared hard labor; he also has nothing to fear save the rains that may intervene before his work is done. The entire rhythm of agricultural work is thus transformed. The worker saves time and can, if he so chooses, increase the size of his gardens. More abundant harvests abolish the threat of famine, and infant mortality decreases.

The group, having grown in numbers, will be feared by its neighbors, and its existence will be all the more assured. This chain of effects does not escape the attention of the Indian as he tries out his newly acquired steel ax against the trunk of a tree.

The fame of this "fabulous metal" spread rapidly throughout the forests and plains of tropical America long before white men penetrated them. Agents of the Protective Service for the Indians of Brazil, who, during the course of this century, pacified many tribes that had remained hostile, were amazed to find them in possession of axes and knives either obtained

through barter with other tribes or seized as booty on raiding expeditions.

Ever since the sixteenth century the acquisition of iron has been a factor in the warlike behavior of the Indians. A few years ago, during a trip to Santa Cruz de la Sierra [a large province of Bolivia, located in the eastern tropical part of the country and still inhabited by many Indian tribes] I gathered some information about the attacks perpetrated by the Yanaigua and the Tsirakua tribes against colonists established along the frontiers of their territories and wagon caravans traversing the southern province of Chiquitos [easternmost territory of Bolivia bordering Brazil.] In each case cited to me, the Indians had secured not only cutting instruments but also pieces of iron, to the exclusion of other objects. They had even extracted nails from houses or vehicles they had seized.

The Mojos Indians of eastern Bolivia, who had been peaceful agriculturists, became slave-hunters for the Spanish in order to earn enough to buy axes and knives. A few tribes of the Chaco relinquished their liberty rather than do without tools. Occasionally, a tribe that possessed axes or knives was attacked by its less fortunate neighbors. The Conibos of the Ucayale [one of the main tributaries of the Amazon—it flows in Eastern Peru and many wild and half-wild Indian tribes live along its sides] threatened to rebel and to kill the local missionary if he continued to distribute tools, which they wanted to monopolize.

Iron created an invincible tyranny among those who discovered its uses. Once this metal became known, a return to the Stone Age was impossible.

To a certain extent, the initial success of the Jesuit missionaries of the sixteenth and eighteenth centuries must be attributed to this fascination for the iron ax. When they launched their spiritual conquest of the forest Indians, the Indians had

already had some contact with the white men or had at least heard about them. The missionaries were not ignorant of the power and cruelty of this new tribe which suddenly appeared at their borders. The hatred and suspicion which Spanish or Portuguese adventurers had spread complicated their task. Nevertheless, a handful of priests without any military support were able to subdue peoples who, until then, had struggled against the encroaching white men and had refused to have any traffic with them. Rarely have historians pondered the reasons for this success, not having considered it a subject worthy of their attention.

What indeed were the motives that led the Indians to adopt toward the Jesuits an attitude so different from the one they had displayed toward other white men? Why did they receive the Jesuits as friends and even accept their guardianship? The answer to these questions is not simple.

The policy of the Jesuits triumphed for diverse reasons. However, after a careful perusal of the letters and reports which describe their first contacts with a "savage" tribe, one realizes the primordial role played by iron. The "black robes" were the bearers of this metal as well as the agents of the revolution to which it gave rise. They were probably welcomed with the same enthusiasm and the same avid curiosity that the merchants of the Bronze Age encountered when they arrived in the villages of neolithic Europe laden with their precious tools.

The Jesuits, who proceeded up a river of the Amazon basin in search of pagans to convert, did not start out on this adventure with empty hands. In the accounts of their travels they often mention the "small gifts that serve to bait the hook of faith." As Father Augustin Zapata said, in thanking his superior for sending him a package of wares: "May God reward Your Excellency for the weapons that You have sent us. They will enable us to win numerous nations over to God, for

the natives are attracted by these gifts which insure their good will toward us. This makes it easy to achieve their Salvation as we mean to do." It is a simple matter to glean from the vast documentation left to us by the Jesuits those passages that serve to illustrate this policy of gifts which "pave the way toward God."

Aware of the power and prestige that their status as "masters of iron" conferred upon them, the priests established forges in their missions in order to attract Indians there and to detain them. One of the Jesuits writes: "The forges give us a good reputation, for they win over the savages whose life and subsistence depend upon these tools, to wit: the axes and knives with which they clear the forests in order to sow the plant they feed upon; the implements they use to build their huts, to fashion the hooks and points they fish with, and to make the other iron tools they dearly prize. They come from more than two hundred leagues around to forge or repair their tools." Every time they wanted to revolt, the fear of losing this advantage held them back.

The same is true of other Indians who, during rebellions, spared only the blacksmiths and their forges. Thus the Piro Indians of the Ucayale killed Father Ricketer [one of the many German Jesuits who explored the upper reaches of the Amazon during the first half of the eighteenth century] only when they were certain they knew how to use the forge without his assistance. During that same period, another Jesuit, a neighbor of Father Ricketer, having praised the iron that "enables us to make friends," advised his colleagues to be sparing of it lest the Indians should begin to believe that it could be harvested in the fields.

Although it was customary to attribute to Providence the zeal that certain peoples evidenced for Christianity, Father Chantre y Herrera, the historiographer of the Upper Amazon

missions, had no hesitation in writing: "Only rarely does divine Reason—which the Indians scarcely understand—draw them into our mission. They settle there for very practical reasons. We can do nothing without the axes which we distribute."

Even today it is by means of axes, scissors, and liana-cutters [lianas are climbing plants that root in the ground, characteristic of tropical rain forests], deposited along paths frequented by hostile groups, that the agents of the Protective Service for the Indians of Brazil attempt to establish contact with the Indians and to break their resistance. This is the same currency that the ethnographer employs to buy his right to remain with a tribe and to cull information from it.

Dr. Darcy Ribeiro, in a study on the assimilation of Brazilian Indians which he prepared for UNESCO, transports us to a dramatic moment in the history of humanity: the end of the Stone Age. The Shokleng Indians of southern Brazil gave the agent of the Serviço an account of their first meeting with white men and of their discovery of iron. The following is a condensed version of it.

Some Shokleng Indians who had gone hunting in the forest were startled to discover a path that was different from their own. They were extremely astonished at the way the shrubbery obstructing the path had been eliminated: it had not been twisted or bent but cut. The Indians examined the underbrush and, after various surmises, decided to search for the mysterious beings who had cut trees in such a strange way. In following the path, they made an even more surprising discovery: a tree of great size had been felled. Stupefied, they formed a ring around the trunk to examine its plane surface.

Some distance away was another cause for concern: imprints in the sand which they could not attribute to any known animal. They followed these cautiously until they reached an

opening where they saw beings of human form, but different from any with which they were familiar, standing around a white cabin. They decided to attack them at dawn, but instead they succumbed to impatience. Before sunrise all the white men were dead.

Then the Indians tried to find the tools that could work such wonders. They picked up axes and sabers which they tested forthwith. The next day they observed that their victims were hairy, strangely pigmented men whose feet were inclosed in bags. In order to inspect the bodies, they undressed them and stood them up against poles. Everything they found in the camp was also subjected to a minute examination. Failing to understand the purpose of the pots, they broke them. After cracking the crania of the corpses to keep them from resuscitating, they left, taking with them only the iron utensils.

On the way back they tried out the axes and the knives. They attributed supernatural powers to these tools which enabled them to cut trees and shrubbery with the greatest of ease and with no ensuing fatigue. As soon as they were home, they announced the news and proceeded to demonstrate the efficacy of the instruments before the assembled members of the tribe.

All those who had remained in the village instead of going hunting now went to the scene of the attack in order to verify the story they had been told. However, the owners of the axes and the knives did not enjoy their use for long. They were wounded or killed by jealous fellow tribesmen. Groups of Indians began to comb the region where the hairy men had been in the hope of encountering others from whom precious tools might be snatched. Sometimes these searches were crowned with success. Other white men were massacred and their camps pillaged, but many Indians fell victim to "portable thunder." The war against the white men was accompanied

by other equally cruel wars against tribes which, having learned that the Shoklengs possessed axes, attacked them in order to steal from them.

Iron, which had to be conquered or protected with weapons in hand, soon became a symbol of victory and courage. Some Indians prized iron objects more because they had procured them after heavy battle. When, after they had been pacified, they received axes and knives as gifts, the Indians simulated conquest of them by a warlike charge. Today the iron objects which they possess in large quantities are coveted merely as symbols of wealth. The Chikrin Indians, as a consequence of their demand for scissors, are so well provided with them that they doubtless have more than any other group.

The conquest of iron enhanced the warlike spirit of the Shoklengs; but, weakened by their dissensions, they finally had to submit to the white men and accept a protection that became slavery. We do not know to what extent other aspects of their culture were altered by this technological revolution or the changes that were contributed to our social order.

But, thanks to the American ethnographer Allen Holmberg, of Cornell University ["Adventures in Culture Change," in *Method and Perspective in Anthropology*, University of Minnesota Press, 1954], we do know the unpredictable effects which the adoption of an object as simple as a steel ax can have upon a human group. The observations that Holmberg was able to make among the Siriono Indians of eastern Bolivia are comparable in nature to those of a scientist in a laboratory. He distributed hatchets to the Siriono, whose peripatetic and miserable life he shared in order to record their psychological reactions and the changes that would ensue in their mode of existence.

His study was a controlled experiment. The Siriono are among the most primitive tribes of South America. Deriving

their food supply mainly from hunting and fishing and a very rudimentary agriculture, their tools were of the crudest: a stick to search with, arrows and a bow too long to be easily manipulated. They had no stone utensils and therefore had been able to cultivate only tiny areas. The search for food dominated their actions and thoughts in an obsessive way.

The cultural change that Holmberg expected began a few moments after they received their first axes. These Indians are very fond of palm cabbages, but with their wooden hunting poles they could only extricate one a day—hardly enough to satisfy one person. The ax enabled them to procure a good half-dozen during the same length of time. That very evening abundance and joy reigned in the camp. From then on the gathering of palm cabbages ceased to absorb their energies and monopolize their attention. The same was true of wild honey, to which the Siriono are passionately addicted. Formerly, with their wooden hunting poles, they were able to extract but a small quantity from the hollows of trees where the bees build their honeycombs; now the ax enabled them to get all they wanted. However, the abundance of honey proved deleterious to the cohesiveness of the group.

The Siriono were accustomed to making an alcoholic drink with honey as the base. Preparing great quantities of mead, they now multiplied the occasions for drinking. Excited by the amount of alcohol they consumed, they gave free vent to their secret rancors, and the unequal distribution of axes had engendered deep-seated jealousy. Those who had not received any took advantage of the festivities to insult and even to beat the more favored individuals. Families ended up by being on bad terms, and the unity of the horde was broken.

From the very first year the Siriono, supplied with axes, acquired plantations and were almost overwhelmed by the harvest that fell to them. At first they wanted to devour every-



*Siriono Indian with machete and ax given him by Holmberg, who carried out a controlled experiment by introducing metal to the tribe.*

thing, to the point of becoming ill; then, contrary to their wont, they agreed to barter the surplus of their products for game brought in from the hunt by less fortunate families.

Here one witnessed the birth of trade among individuals who had known nothing of it. The possessors of axes, now well fed, no longer felt the same need to roam the forest and became transformed into an almost sedentary people. Their entire technology therefore changed. Houses, weapons, and tools

were fashioned rapidly, and every one could enjoy a leisure never before experienced. As they became sedentary, the Siriono grew interested in animal-breeding and joyfully accepted any chickens that were offered them.

Although the ax has helped to produce social disorganization, it may also be a source of harmony. The Tupari Indians of the Mato Grosso assure ethnographer F. Caspar that relationships within the tribe have greatly improved since they obtained axes. Everyone, they claim, is able to feed his family and himself without too great an effort. "There is no longer any famine or jealousy caused by lack of food. All the men, whether or not they are good hunters, fill their stomachs equally well. Only the inept are more vegetarian than the others."

But the rhythm of life has changed. Festivities that used to take place only on rare occasions are far more frequent today. To tell the truth, the Tuparis paid heavily for their advantages. In order to obtain their axes, they hired themselves out as rubber prospectors and contracted diseases which they transmitted to their villages, bringing destruction to a large percentage of the population. Despite their fear of catching the grippe or some other pulmonary infection, they nonetheless did not hesitate to expose themselves in the simple hope of procuring the precious tools.

It is quite curious to note the rapidity with which a group that has bartered stone for iron forgets how to use the old techniques. The acquisition of steel axes is attributed to a civilizing hero. Many Indians even deny that it is possible to cut down a tree with a stone implement. They refuse to regard the tools of their ancestors as having had any practical utility, referring to them as "thunder stones."

Up to this point all our examples have been taken from the South American continent and specifically from tribes whose social organization was relatively simple. Far more profound

has been the effect on the social and religious life of highly integrated and intricately structured groups. It is difficult to imagine a more complete revolution than that which the advent of the iron ax precipitated among the Yir Yoront of Cape York in Australia.

An American sociologist, Lauriston Sharp, has presented it in the form of a sociological problem addressed to the sagacity of his readers: in view of the place held by the stone ax within the economic, social, religious, and moral structure of the Yir Yoront, what consequences have ensued in these various areas as a result of its replacement by the iron ax?

Almost all the activities of the Yir Yoront, he says, who are divided into small nomadic groups over a vast territory, are directed toward hunting and harvesting. The ax is the most important part of their rudimentary equipment. They find it indispensable in procuring food, building their meager shelters, and obtaining warmth—in short, it is the foundation of their entire technology. It constitutes not only a tool par excellence but also a factor of social cohesiveness whose role, had not the stone ax disappeared, would have escaped the attention of ethnographers.

The Yir Yoront did not find in their own region the stones they needed to fashion their axes. They obtained them from another region in exchange for spears. The production of these weapons, whose tips consisted of ray fishtails instead of pointed blades, was the monopoly of a coastal tribe. Contact had been established between the regions that produced these different materials, and the Yir Yoront were extremely active participants.

Like the making of the axes, these transactions were a masculine monopoly. They determined a network of relationships both commercial and political in which each group played a specific role. During the important initiation festivities the

"sellers" and "buyers" met and took time from the religious ceremonies to exchange stone axes for spears, not the least of the attractions being the advantages that everyone derived from such transactions.

The men owned the axes, but the women were the principal users of these tools, borrowing them from their husbands, fathers, or uncles in accordance with very specific regulations. In keeping with this arrangement, the young people, who took no part in the commercial transactions, had to ask their elders whenever they needed an ax.

Actually, the ax had become the symbol of virility, of masculine predominance, and of the respectability assigned to age. The function discharged by the ax went beyond the social framework and extended even to the religious and mythical domains.

For one of the clans of the Yir Yoront—it was called "Iguana-cloud-lit-by-the-sun"—the totem was precisely the stone ax. Although the ancestors of this group were believed to have discovered the stone ax, its members did not monopolize the making of it. However, during religious festivities they did have the privilege of symbolizing its employment. This detail is not without importance. In fact, according to the conception of the world entertained by these people, every action must reproduce the deeds and events that typified the kind of life led by the ancestors from the very beginning of time, the present being but a repetition of the mythical period that preceded it. This, therefore, was the significance of the stone ax before iron replaced it.

Recently the missionaries have distributed a great many iron axes among the Yir Yoront, either as recompense for work performed in their missions or merely as gifts, with an eye to currying favor. In either case, the missionaries hoped they would effect a rapid improvement in the living conditions of the

population. Groups that were far from the European establishments did not have to wait long to receive, in their turn, the axes acquired in barter transactions. This resulted in the speedy disappearance of the stone ax.

However, despite all estimates to the contrary, the iron ax failed to contribute to the material or moral progress of the Yir Yoront. The latter, it is true, derived advantages from the change. Once their toil was made easier, they came to have a leisure which hitherto had been denied them. But they did not employ it to enrich their cultural patrimony. Rather, they used it to sleep—"an art in which they excelled."

Had this been the sole consequence, the situation would not have been too bad. Unfortunately, there were more serious ones, and they shook to its very foundations the social structure of the Yir Yoront. First of all, the system of barter which united the various groups became totally disorganized; ties of friendship and association between the hordes no longer served any purpose, and property ceased to move from the coast into the interior and vice versa; tribes and clans alike lost their independence and became tributary to the missionaries. The latter distributed goods according to principles that seemed strange and incomprehensible to the natives. Women and adolescents became the owners of axes and enjoyed the same rights as the adult males, including property rights, which until now had been an exclusively masculine prerogative.

The old people, in particular, were adversely affected by this technical revolution; their dignity and age placed them at a disadvantage vis-à-vis the youth, who praised the services rendered by the missionaries and hastened to their missions whenever axes were being distributed. The old people, formerly so highly respected, became tributary to the women and the young folks, thus forfeiting both prestige and authority.

For the first time the word "ax" was used with a feminine

possessive—which also constituted a minor linguistic revolution. The initiation festivities had less sparkle because those who had formerly come to them to buy stones were no longer attracted by the necessity or the hope of making a good transaction. The entire system of ethical values was adversely affected by this situation. Ties of dependence were broken, and relationships between classes were altered. Among all members of the tribe there was a decline of feeling for moral values. Respect for property right was weakened, and as a consequence thefts and other misdemeanors increased.

Formerly, the mythology of the Yir Yoront had had an answer for everything: whenever a change occurred in their culture, they had added it to the body of legends in such a way as to integrate the innovation into their traditional system. However, such readaptation became impossible after the advent of the iron ax. To be sure, an attempt was made to attribute the iron ax to a clan whose totem consisted of white phantoms (associated with white men), but the clan which called itself “Iguana-cloud-lit-by-the-sun” claimed this privilege on the ground that the ax was one of their totems.

Today the Yir Yoront tribe is declining. Because of its inability to adapt itself to so many innovations, its totemic system has fallen into a state of decadence, and its disorganized social and religious order has further degenerated. The steel ax alone did not cause the demoralization of the tribe but it has been an important factor and, in some ways, the symbol of the entire process.

The three examples presented here are, in many respects, special cases because the adoption of the ax was unaccompanied by any other contacts. Generally speaking, when different civilizations stand face to face, what they borrow from each other is not confined to one technique alone. For this reason it is not easy to differentiate between beneficial results

and those that are less positive. The consequences of the substitution of iron for stone seemed to us all the more deserving of attention because in all the cases chosen but one cultural element had been involved. The presence of this element within the core of a primitive society constituted, of and by itself, a revolutionary ferment.

One could cite other cultural acquisitions which, like the iron ax, exerted a decisive influence upon the destiny of a people. For example, the horse, which, in many regions of America, preceded the Europeans, had likewise helped to produce economic, social, and even moral transformations.

The Mbaya Indians of the Gran Chaco [a semi-arid zone stretching between Argentina, Bolivia, Paraguay, and Brazil—it is the home of several warlike tribes] were once hunters and seminomadic scavengers like their close relatives, the Tobas and the Pilagas of modern Argentina. They became masterful horsemen during the seventeenth century, engaged in plunder, and, in a few years, carved for themselves an actual empire. The victories of the Mbaya won them numerous captives whom they reduced to a servile people. Within the space of one or two generations, they created in the heart of South America a semifeudal society that curiously resembled the *Herrenvölker* of Asia and of Africa. Nothing remained of the democratic customs practiced by the nomadic horde. The families of the conquerors constituted an aristocratic caste whose arrogance and insolence must have astonished the Spaniards.

Cultural change has become one of the principal fields of interest in the social sciences. Reacting against the somewhat oversimplified conception of the nineteenth century, which attributed to civilization intrinsic virtues acknowledged by all, ethnographers have emphasized the resistance that many "primitive" or barbaric cultures offer to the introduction of

innovations. By stressing the conservatism of the primitives, they ended up by creating another myth: the myth of their inertia.

Actually, the so-called primitives are just as interested in new ideas and techniques as we are. The immobility of the primitive world is an illusion. Of course, the rhythm of change may be slow, but under certain circumstances, such as the ones we have examined here, it can also be extraordinarily rapid.

Any culture, no matter how rudimentary it may be, centers its interest upon a determined, and unusually limited, number of activities. Consequently, it will always be ready to welcome innovations that fit into its own chosen domains. We have seen that this is true as regards the ax. Because this tool played a primordial role in agriculture, upon which the tribe's subsistence depends, and because the natives recognized the superiority of iron over stone, they had not the slightest hesitation in adopting it.

The changes we have examined represent the natural consequence of stressing tendencies that already existed within the culture. Refusal of an alien technique always corresponds to an absence of motive or to the impossibility of integrating it into a system of values. How many objects collected as curiosities in the beginning are discarded as soon as one realizes that they do not satisfy any taste, any traditional aspiration! Resistance to change is caused either by ignorance, or by resentment against coercion, or by the belief that the security of the group is threatened.

There is a lesson to be derived from the history of the ax: that of the close cohesiveness of all the elements which, united by subtle and often imperceptible ties, constitute the culture of a society. However, one must not conclude from the cases I have cited that the totality of a culture is affected by a change in detail. When the culture is complex, certain domains sub-

sist only indirectly or in such a way as to allay the repercussions of revolutions that occur within a different framework.

These small neolithic societies which have paid so dearly for the privilege of possessing iron offer us the very image of social disorganization—that pathology of human groups which scholars have found so difficult to define. The situation we have examined here is paradoxical. The anomaly resulting from the acquisition of the ax stemmed not from an event that clashed with the profound tendencies of the group but from the improved output of an already familiar technique. Shokleng, Siriono, and Yir Yoront were all, in a way, victims of the superfluity of a boon. It is for this reason that their destiny is exemplary.

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# Everybody Needs an Enemy

*How much of our conception of the enemy is based on fact, how much on a projection of our own feelings?*

By ARTHUR GLADSTONE

At the present time many people in this country regard Russia as the enemy (or all the Communist countries together or simply all Communists wherever they are). And many people in Russia similarly regard the United States as the enemy (or all the capitalist countries together or simply all capitalists wherever they are).

Throughout history there have been countless examples of such hostile pairings.

There are some basic patterns which seem to hold for nearly all such antagonisms. Each side believes the other to be bent on aggression and conquest, to be capable of great brutality and evil-doing, to be something less than human and therefore

hardly deserving respect or consideration, to be insincere and untrustworthy, etc.

To hold this conception of the enemy becomes the moral duty of every citizen, and those who question it are denounced. Each side prepares actively for the anticipated combat, striving to amass the greater military power for the destruction of the enemy.

Many actions which are ordinarily considered immoral become highly moral when carried out against the enemy. Often people praise their compatriots for the same actions they condemn in the enemy. The approaching war is seen as due entirely to the hostile intentions of the enemy. The only way to prevent the war is to frighten the enemy by achieving and maintaining military superiority (in fact, by outdoing the enemy in the use of methods for which the enemy is generally condemned).

Eventually the growing hostility and the military preparations do lead to war, each side believing that the war was made necessary by the actions of the other.

In the hope of contributing to understanding of this often-repeated pattern of interaction, I propose to discuss an important mechanism contributing to the conception of the enemy.

Perhaps a good way to begin is by pointing out that there are some very definite advantages in having an enemy. For example, among the advantages which many of us in the United States derive from having Russia as an enemy are the following: We have the very considerable stimulation to our economic system provided by the manufacture of armaments and preparations for war in general. (It is true that equivalent economic stimulation could be provided by other measures, such as provisions for human welfare, but there is a great deal of opposition to such measures.)

We are provided with a satisfying explanation for many con-

ditions and events that displease us. Politicians are provided with a sure-fire campaign issue and vote-getter. The rest of us are provided with a crusade in which all can participate.

Let us not underestimate the great psychological satisfactions provided by a crusade. There is the smug satisfaction arising from the recognition that we are morally superior to the Russians. There is the self-respecting satisfaction arising from the feeling of being needed by the cause, of being able to make a social contribution. And there is the red-blooded satisfaction of being able to hate and to prepare to kill and destroy without feeling qualms of conscience. Similarly, the Russians derive great advantages from having the United States as an enemy, but it is probably not necessary to detail them here.

However, the various advantages of having an enemy do not in themselves account for the belief in the enemy. It is not a general rule that men believe what it is convenient to believe. We need to examine the circumstances under which this can happen. We also need to examine the factors which determine that two particular nations become each other's enemies instead of some other pairing.

Psychoanalysts have been especially concerned with beliefs which are convenient but which embody distorted representations of reality. We may therefore hope to obtain from psychoanalytic investigations and theorizing some help in understanding the belief in an enemy.

Psychoanalytic theory provides a classification for the various forms of reality distortion, which are known as defense mechanisms. A defense mechanism serves to protect an individual from becoming aware of things which would cause him an intolerable amount of anxiety. The things kept from awareness are usually facts about the individual himself or about other people important to him. Among the defense mechanisms are:

repression (which is basic to all the others), projection, rationalization, isolation, denial, reaction formation, etc.

Projection is the defense mechanism which is most relevant for understanding the conception of the enemy. Projection is the ascription to others of impulses, feelings, and other characteristics which exist in an individual but which he cannot admit to himself.

Projection is seen in extreme form in paranoid mental patients with delusions of persecution. These people project to others hostile feelings which they cannot admit having themselves. The operation of projection becomes clearest when such a patient attacks someone who is not bothering him. The patient explains that this attack was made purely in self-defense, that the other person had actually attacked him first, or was just about to attack him, or was part of the plot against him. (Paranoia involves other mechanisms besides projection, particularly reaction formation against homosexual attraction, but we mention it here only as an illustration of projection.)

In milder forms than this the mechanism of projection is quite common, so common that we have all experienced it. For example, when we make a mistake or cause an accident through carelessness, we sometimes project the blame to some inanimate object. "The poor workman blames his tools," says the proverb. When we break something or lose something or when we are late for an appointment or make an embarrassing slip, we often find ourselves looking for some person or circumstance onto which we can project the blame.

What factors determine whether an individual will use the mechanism of projection with respect to a given item of feeling or behavior? One factor is the extent to which the item is unacceptable to the individual. To what extent is it incompatible with his self-conception? Would it be only slightly discomforting to acknowledge this about himself or highly anxiety-

arousing? A second factor is the extent to which the individual's past history and personality make it possible for him to project. A third factor is the availability of a suitable object onto which he can project, a suitable scapegoat. Feelings of hostility can more convincingly be projected onto someone who is actually rather hostile than onto someone who is rather friendly.

At this point an objection may be raised. If hostility is ascribed to an individual who is actually rather hostile, why should this be called projection? Is it not simply a realistic understanding of the hostile individual? There are several important characteristics of projection which help to distinguish between projection onto an individual who is an appropriate object and the realistic understanding of that individual.

The most important characteristic is that projection involves a denial of some fact about one's self. The individual who projects sexual impulses or hostile impulses onto another person denies that he himself has such impulses toward that person. The denial involved in projection facilitates a black-and-white picture of interpersonal situations, a picture in which the projector is completely innocent and the other party is completely to blame for any difficulty or unpleasantness.

Another important characteristic is that the projector generally has little or no evidence for his accusation, and, when he does have evidence, it does not seem to be the basis for his conviction; if his evidence is discredited, he will find or manufacture other evidence.

A third characteristic is that the projector's apparent insight into the personality of the other is frequently limited to the particular trait or traits which he denies in himself.

Related to this is a fourth characteristic, a tendency to exaggerate the importance of the projected trait, even to see it as the key to the whole personality of the other.

A fifth characteristic is the tendency to assume that the trait projected onto the other represents conscious motivation, whereas, if it is actually true of the other, it is quite likely to involve unconscious motivation.

A sixth characteristic is the tendency to see the projected trait as having especial reference to one's self. Thus, if the other is seen as hostile, he is likely to be seen as especially hostile to the projector.

Finally, the seventh characteristic which distinguishes projection is that the projector's accusation of the other often turns out, very conveniently, to be useful as justification for similar behavior by the projector. A familiar example is the zealous guardian of public morals, who projects his sexual interest and curiosity onto others and then finds it his duty to seek out obscene material in order to protect others from it.

The use of projection as a justification is especially important, and especially dangerous, in international conflict. An example is provided by a speech made at a recent American Legion meeting. According to the account in the *Washington Post and Times Herald*, July 25, 1958:

Maj. Gen. Hugh J. Casey, USA, (Ret.) said last night the Soviet Union, not the United States, will decide when and if World War III starts. . . .

He said: "When the Soviet Union is prepared, when it is ready, when it thinks the time is ripe for success, then the decision will be made to start World War III. And nothing we do is going to affect that decision."

For this reason, Casey told the Legionnaires, the United States should not hesitate to act aggressively in trying to keep world peace.

I have already mentioned three factors which affect the occurrence of projection (unacceptable aspects of the self, past history, and availability of a scapegoat). Now we need to make three additions to the list, which apply particularly to the kind

of projection that is relevant for international conflict. One additional factor is the amount of contact between the projector and the object of projection. Projection can occur and be maintained more readily when the object is distant, not easily accessible for verification of characteristics. The distance which facilitates projection can be physical distance and it can also be social distance, which interferes with free interaction and the development of an accurate conception of the other.

The second factor to be added is the climate of opinion. We generally find it easier to share the beliefs of others than to oppose them. Many people believe the earth is round simply because everybody else believes it too. Widely held projections are a special case of this social influence on our beliefs. It is easier to believe that the sexual desires of Negro men are a threat to white womanhood if your friends and neighbors believe it too. Furthermore, if a belief is widely held it is much more likely to be acted on, since there is likely to be social approval for the action. Thus, a projection which is shared by a number of people is likely to have much more serious social consequences than if each of those people developed a different (though equally erroneous) projection.

The third factor to be added relates to the ability to project onto a group of people, such as a political or ethnic group, or a nation. This would seem to require that the group be personified, so that it is thought of somewhat as a single individual, or that the group members be regarded as essentially similar to one another. These ways of thinking about groups seem to be extremely common, so this is probably not very much of a limiting factor.

By the way, I have not meant to suggest that projection is the only mechanism which influences the conception of the enemy nor that the conception of the enemy is the sole cause of war.

If this approach is to be applied to the current international situation, perhaps the first question to be asked is: To what extent do our conceptions of the Russians and their conceptions of us involve projection rather than realistic appraisal? For simplicity, I shall talk in terms of studies to be carried out in this country; it would obviously be desirable to carry out corresponding studies in Russia.

One possibility would be to compare the conceptions which various individuals have of themselves with the conceptions they have of Russians, perhaps using techniques similar to those used in studies of stereotypes. Are the traits which an individual regards as especially reprehensible also the ones which he denies in himself and ascribes to the Russians? Russophobes, Russophiles, and relatively neutral individuals might be compared. It would be desirable to have objective information about the personality of each individual to compare with his conception of himself.

Another possibility would be to have subjects give their reactions to accounts of specific actions by Russia (such as military preparations, offers to negotiate, antagonistic speeches, conciliatory speeches, etc.) and also to accounts of similar actions by the United States. It would be of interest to learn the motivations ascribed to those responsible for a given action, the subject's approval or disapproval of it, and his estimate of its probable consequences. We would expect those who project to interpret similar actions by the United States and by Russia in quite different terms, in accordance with their projections. Later recall of accounts of these actions might also be studied to see whether there are memory distortions which indicate projection.

A third possibility might be the development of a test of an individual's general tendency to use the mechanism of projec-

tion. An individual's performance on this test might be compared with his conception of Russians.

If studies along these lines were to show, as I believe they would, that our thinking about the Russians (and their thinking about us) involves a great deal of projection, this would make it important to carry out a number of additional studies to increase our understanding of this problem and to see what can be done about it.

I will mention briefly some of the topics to be studied: how the tendency to project develops and the effects of various childhood situations and child-rearing procedures; investigation and further specification of the factors affecting projection which were suggested above; the extent to which men in positions of power, such as political leaders, make use of projection in their thinking about the Russians; the ways in which news and information about Russia are handled in the mass media and the effects of this handling on the audience's conception of the Russians (this could be studied in relation to the personality dynamics and the tendency to project of various communicators and various segments of the audience); the effects of exchange programs, foreign travel, and other forms of contact (again, in relation to the personality dynamics and tendency to project of the participants); the effects of psychotherapy, especially psychoanalysis, on the tendency to project and on the conception of the Russians. It should be possible to develop other methods for promoting more realistic thinking about the Russians and to do action research on their use and effectiveness.

Before closing, there is a final question to be considered. Suppose that my basic hypothesis (that projection plays an important role in our conception of the Russians and their conception of us) should turn out to be correct. Suppose, further, that we were to discover and apply methods for eliminat-

ing projection from our thinking. Would we be any better off than we are now? How would this affect the fact of two antagonistic power systems with differing ideologies competing for world domination and threatening each other with nuclear weapons?

It would, I believe, change our ability to deal with this situation and to control its destructive potentialities. If the danger from the opponent could be seen in realistic terms, instead of being greatly exaggerated as a result of projection, it should be possible to devise reasonable ways of dealing with the danger instead of preparing for a holocaust which will destroy both sides.

If the people on each side could recognize the extent to which their own actions serve to provoke and frighten the other side, instead of placing all the blame on the "enemy," it should help tremendously in working out disarmament proposals which will serve to protect both sides instead of being to the advantage of one's own side.

And if the people on both sides could recognize the extent to which they have needs and goals which are compatible, and even mutually dependent, this should facilitate the development of co-operative arrangements which are a necessary basis for peaceful relationships.

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## Circumstance

Scientific journals today contain many excellent articles proving, with various types of refined mathematics, that increased radiation is harming the human race. One cannot doubt that certain individuals are suffering organic damage, and no one condones the indiscriminate release of harmful radiation into the atmosphere. However, any statement regarding injury to the race as a whole implies vast knowledge of the future.

Once the highest form of animal life lived in the sea, a dense, buoyant, protective environment infinitely better than the thin, radiation-filled, relatively harsh atmosphere above. Still, certain forms of life were moved by circumstances and eventually established themselves upon the land. Now the human species stands safely within an ocean of air and gazes upward into the thin, radiation-filled, relatively harsh environment of outer space. It is as unfitted for this region as are fish for the land. Circumstances have released the potent force of radiation, which will certainly affect the human race. To attempt to evaluate the final result today seems premature. It is unwise to point to any organism and say that this represents ultimate biologic perfection. For once a fish walked on the land—and a man may walk on the stars.

S. W. BECKER, J.R., M.D.

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There was a merchant in Ujjayinī whose fortune was considerable. His name was Sāgaradatta, Gift-of-the-Ocean, and his character was as unfathomable as the sea.

Once when this merchant's ship was under full sail on the ocean, he sighted another vessel with a streaming pennant atop. "Heave to alongside that ship," he commanded the crew, and soon the two ships met.

# Destiny Conquered

A TALE OF ANCIENT INDIA

*Translated from the Sanskrit by*

*J. A. B. Van Buitenen*

Sāgaradatta asked the master of the merchantman: "Tell me, sir, who are you and from where do you hail?"

"I am the merchant Buddhavarman from Rājagṛha. And you, sir," he asked in his turn, "who are you and from where do you come?"

Thus their acquaintance began, and together they continued their voyage. Whiling away their time with poems and tales,

music and song, liquor and dice, they penetrated the vastness of the unplumbed ocean. They sailed to Sumatra, where they acquired an enormous load of gold bullion and returned with their load to a port on the mainland.

Then Sāgaradatta said to Buddhavarman: "Let us perpetuate our friendship! When I departed from home, my wife was heavy with child, and in the meantime she must have given birth to a child, a boy or a girl. If it is a daughter, I shall marry her to your son; and if it is a boy, you must marry your daughter to him."

"Oh, wonder!" explained Buddhavarman, "that is just what I myself had in mind. But what is so strange? We have the same nature!"

So the two merchants contracted the alliance, embraced each other, and parted, each returning to his home town with a caravan of camels. There they paid their respects to their rulers, one to the Rājā of Avanti, the other to the Rājā of Magadha, presenting to them a profusion of gifts, and then repaired to their homes. There each of them, one in Ujjayini, the other in Rājagṛha, spent the day feasting the brahmins and the monks and being themselves feasted by their relatives.

When at last Sāgaradatta was at leisure on his couch, a baby girl was put in his arms, a girl garlanded with jasmine blossoms. "Whose is this jasmine-garlanded girl?" he asked his wife, and she whispered shamefacedly: "But yours, whose else?"

"Lucky the parents who have a son as beautiful as Jasmine!" he said. "My love, do not worry too much if you now are a daughter's mother. Knowledge, which bore Fortune as her daughter, has never yet been blamed for her issue!"

When he had consoled her with such kindly words, he told her about his meeting with Buddhavarman on the high seas and the friendship that had ensued. And because her father had

asked, "Whose is this jasmine-garlanded girl?" his daughter was henceforth known as Jasmine.

Buddhavarman meanwhile had interrogated his wife too. "Tell me, what have you borne me?" But she remained silent. Then she brought him a one-eyed, hunchbacked son, a skinny, potbellied dwarf with protruding teeth and a drooping underlip.

"Why have you given birth to this useless dromedary!" he cried. "Why did you not consult a fortuneteller and abort the child? Now this deformed goblin has voided the contract I made with Sāgaradatta. If he sends a message that he has a daughter, am I to reply that I have a son?" Then he added to his wife: "If a messenger arrives from Avanti, let no one mention this dromedary!" At the first sight of his son, the father had called him a dromedary, so thereafter the townspeople called the boy Dromedary.

After some time Buddhavarman received a letter from Sāgaradatta, which he read in private.

HAIL THE HONORABLE BUDDHAVARMAN AT RĀJAGRHA!

Sāgara of Ujjayini embraces you happily and begs to inform you that a child has been born to your friend, a daughter, favored with prospects of excellent fortune. No woman on earth will match her beauty! If your wife has borne you a son, luck is with us; and if it be a daughter, a contrary fate has robbed us. For a friendship which is not strengthened by an alliance will remain without foundation; and beauty seconded by masculine strength will prove everlasting.

After seeing to it that the messenger who had carried the letter was well looked after, Buddhavarman asked his wife, "Now that the matter has come to this stage, what are we to do? Advise me!"

"Women have but two fingers of sense," she said, "so what can they know? But as long as you ask me, I shall speak: a woman like me takes courage from questions!

"A merchant's business is the compromise between truth and falsehood, and no merchant should neglect his business. For to desert the duty to which one is born is censured as misconduct. Now, you have really got a son, and there is no falsehood in that at all. But you must lie about his defects and call them virtues. All things in the world have fictitious names; there is even a deadly poison they call a 'sedative'! If a man gets involved in a difficult matter, truth is useless. That is the rule, and there is good authority for it: did not even the Pāṇḍava lie that Drona's son Aśvatthāman had been killed?<sup>1</sup> The allurements of riches prompt merchants like you to penetrate the frightful Milky Sea (which resounds with the grumbling of Death) as though it were a pond in a park. Well, the daughter of this prince of caravan traders will not enter your house without a treasure of riches which the ocean has yielded. Don't scorn a treasure which the poor can hardly hope to find; and this treasure, prize of a hundred privations and efforts, is now yours to pick up without trouble!"

"Well spoken!" praised Buddhavarman, and he gave the messenger a reply for Śāgaradatta. "Tell my friend: 'We too have been favored—with a son of a shape that defies description. And as to his physical and intellectual endowments, you shall judge for yourself. Why should I try to describe them?' " With this highly equivocal message he sent the messenger off, properly reimbursing him for his travel expenses.

For eight years they exchanged messages until at last one messenger told Buddhavarman bluntly that he had been ordered by Śāgaradatta and his wife not to return before he had seen their prospective son-in-law. "So if you want me to

1. In the great war between Pāṇḍavas and Kauravas, which is the subject of the *Mahābhārata*, the hero Drona who sided with the Kauravas is told by his enemy that his son Aśvatthāman has been killed. When Drona thereupon lays down his arms, he is decapitated.

return to Ujjayini," the man said, "you must show me the boy and his qualities." Instantly Buddhavarman made up his mind and replied with perfect presence of mind: "He is staying with his uncle in Tāmralipti, where he studies."

Another four years went by while the matter remained at this stage. Then a delegation of three or four messengers arrived, shrewd diplomats all. Without respect for the respectable Buddhavarman they declared: "Listen what your friend and his wife have to tell you. 'Thirteen or fourteen years have passed now, and still we have not seen what our son-in-law is like. Is it possible that you have never heard the proverb, "Two trade with the merchandise in full view"? Your claim that he is studying in Tāmralipti is a most unimaginative pretext. Even those whose business and vocation it is to study the Veda according to the prescribed rules have only a limited time set for their studies. But it is hardly natural to believe that your son has given up all his other duties to devote his whole life to learning.' Stop this joke, which frightens us as the laughter of Yama, and whether here or in Tāmralipti show us the boy!"

"My good sirs," countered Buddhavarman, "rest for a moment." Then he sought his wife and said to her in consternation: "Without even thinking of the bad things that were in store, wretch that I am, I was lured by distant hopes and followed the advice of a woman! Have your son's many defects—his protruding teeth, his single eye, and so forth—disappeared in the meantime? Of course not! When a man's body grows, his defects, like his arms and legs, grow even faster! Show the messengers your son, who looks like a creature of Śiva; or your wisdom be pleased to think of another way out!"

"As a matter of fact," she said, "I have already thought of one. If you approve, we must start on it at once."

"Speak!" he said, and she whispered in his ear.

"Marvelous!" he exclaimed and got to work on it.

He had a private meeting with a friendly brahmin who lived on his charity, and when he had disposed him to be kindly by a hundred flatteries, the merchant begged him dejectedly: "You know the character and the appearance and the nature of my son, who has been nicknamed White Crow; there is no need to tell you about his defects. You know about the agreement between Sāgaradatta and myself and the exchange of messengers. Your friend is lost! Prove that your friendship is enduring. But, bah, I don't need to be so embarrassed about it; after all, it is in your own interest. You have a handsome son, Yajñagupta, who is not only learned in Revelation, Tradition, and all sacred lore, but quite competent in the worldly arts to boot. Let him marry Sāgaradatta's daughter, bring her here, and turn her over to my son, but intact! You shall have a share of the dowry she brings—gold, jewelry, everything."

He fell silent, ashamed of his proposition. But the other, greedy for his share, replied eagerly: "Should gentlemen like you have to beg us? Command us!" Then he called Yajñagupta and in the presence of Buddhavarman told his son the entire story.

Yajñagupta said: "Children and pupils must obey without reservations their masters' orders, whether proper or not. I shall do as you say."

Buddhavarman waited for a few days and then showed Yajñagupta, who had been dressed as a groom, to the family's delegates. "My son has just returned from Tāmralipti," he said. "Judge his appearance and qualities for yourselves!"

"The jasmine is most fortunate to meet the young spring!" they exclaimed. "There is no need to inquire after his qualities, for no untalented young man could ever strike such a figure or display such poise. Only, his name is most inappropriate: Dromedary indeed! It is not fitting to call the Tree of Wishes by the name of a deformed bush. Yet, there are even deities

with unspeakable names: the moon is called 'tumor,' and the wind is even referred to as 'his mother's dog'! But a bad name has no effect if what it names is good: it is the inadequacy of the bearer which affects his bearing! In any case, today the wife of caravan trader Sāgaradatta has gained another child. And the affection which exists between the two of you has now become truly supreme and everlasting. Let us go quickly and congratulate Sāgaradatta's wife, who has lost both sleep and appetite in her anxiety. And you, sir, start the Groom's Procession on an auspicious day; for now there is nothing that stands in the way of the marriage."

Thereupon the delegates left with magnificent presents, and Buddhavarman sent off the Groom's Procession with Yajñagupta as the bridegroom. The merchant dressed his son, the real Dromedary, in the style of a brahmin and sent him along ostensibly as the companion of the supposed groom. In this guise, the hunchback carried the gold for the groom's gift to the bride's family.

At last the Groom's Procession reached Ujjayinī, capital of Avanti, which was so splendidly decorated for the event that it resembled the City of the God of Riches when his kobolds come marching in. The party lodged in the official guesthouse on the banks of the Siprā in enchanting public gardens which spring had decked with splendor. Bypassing Mahākāla's famous statue,<sup>2</sup> the townspeople arrived in procession, curious to see the prospective bridegroom, and they could not stop looking. The groom himself passed some time with the accredited wits, poets, and pundits of Ujjayinī as well as with the city's accomplished lute and flute players.

Then his brother-in-law arranged a magnificent banquet and announced, "A simple meal is ready for you. Please be seated and serve yourself!" When Yajñagupta saw that there was one

2. Ujjayinī's famous phallic icon of Śiva Mahākāla.

common dining room with many seats, he asked his brother-in-law, "Who is going to eat here?"

"Please sit there in the middle on the gilt chair with the high coral legs that is covered with a sparkling clean cloth. The eldest and the youngest of your brothers-in-law will sit on both sides of you on those cane chairs, and this long row of seats on either side will be occupied by your older brothers-in-law."

The bridegroom considered a moment; then he said to the other: "I cannot eat and drink with you. We have a custom in our family that we do not drink or take food with others before we have married. When after my marriage I come back here, I shall have my father's permission to do so; but now, especially without my preceptor's sanction, I cannot do so." With his father-in-law's consent the bridegroom dined separately and ate a pure meal; but the family was piqued.

The next morning, as soon as the last watch of night had passed, the bridegroom was taken in procession with loud music to Sāgaradatta's house to be married. He took the bride's hand which glittered with gold, but his own was bare of ornaments according to his preceptor's instructions. And when he had ceremonially made the solemn circumambulation of the sacred fire, a piercing pain made him grip his stomach with both hands, and he fainted and fell. His breath stopped, his eyes closed, and he let out a roar of pain that could have silenced a wild bull.

Seeing the state her son-in-law was in, the bride's mother beat her breast and head and shrieked at Jasmine, who had fainted with her husband. "Aah, you are lost, you are dead! A curse upon you, devil in disguise; you have murdered a husband more beautiful than Pradyumna himself!<sup>3</sup> Why aren't you dead? Why am I not dead, I who now must share your

3. A son of Kṛṣṇa who also passes as the reincarnation of the God of Love, who, according to the legend, had been burned by Śiva's third eye.

misery? Now I shall have to live with you all my life, alive with the dead. . . . How is a woman to live who is widowed while still a girl? A husband is far, far more important to women than their life. And the mother who can bear seeing her dearest daughter, as beautiful as she is virtuous, become a young widow—ai, she is the eldest sister of death!”

Shrieking, the mother collapsed. Then there was a faint movement in the bridegroom’s chest and stomach, and at this sign of life the air was filled with the laughter and happy shouts and yells of the people. Slowly he began to breathe, his lashes quivered slantwise, and he opened bloodshot eyes under his heavy lids. Thereupon Sāgaradatta celebrated a feast so huge as to be beyond the means of an aged king who is blessed with the birth of a son.

The physicians asked what had happened to him, and he replied that he had suffered an attack of acute indigestion. The worried physicians prepared a medicine for indigestion, and he was carried to a bedroom. Somehow he passed the night, now and then dozing off in spite of his stomach pains, while his bride sat up with him. Drinking nothing but extracts of nāgarā, ativiṣā, and muṣṭā herbs and eating small portions of fatless foods, he grew thinner every day. Jasmine was so busy concocting medicines that she forgot the becoming shyness of a bride, so sick she was with worry for her husband’s health.

While she was sitting with her husband, the hunchback came visiting, and playfully he dared to caress her body that was limp with anxiety. “Leave this tradesman, this impotent libertine, and be good to me,” he urged. “I am your lover. The gods themselves have presided over our wedding!”

She jumped up from her place and sought protection behind her husband’s bed. “What kind of vulgar joke is this?” she asked her husband.

He smiled. "Don't be so provincial! No civilized woman minds a clown. The rich usually keep a wretched fool for his prattle. Nobody will keep a dumb parrot in a cage. Don't mind this foul-mouthed buffoon if he teases you or touches you, silly girl!" But Jasmine, who came from a proper family, ignored his advice and contemptuously told the hunchback that the lowest and fiercest kind of whores would do for him.

It occurred to Yajñagupta that the best course for them was to leave before the moron could give the secret out. And so when the physicians, whose care had been useless, asked him what he would like to eat or drink or to divert himself, he said in a very faint voice: "I have been wishing to see my dear parents for a long time; they love me dearly." The physicians reported to Sāgaradatta, "This is what your son-in-law says, and let it be done. All the treatment a doctor can give for indigestion has failed in his case. Perhaps when he goes to his home town, he may recover. Seeing one's friends is a universally recognized medicine."

And so the merchant sent off his daughter with the bridegroom—like a dark night with a waning moon—and he sent her servants, headed by her nurse, along with her, as well as an escort to protect them and a caravan of camels laden with the treasures of the ocean.

Calculating the stages of the bridegroom's journey to Rājagṛha, the merchant prince sent along a group of trusted servants so that at each stage two of them could return to Ujjayinī with the latest tidings of his son-in-law. The first two returning runners reported a slight improvement in the health of the bridegroom. And with every further stage he traveled, he parted with more and more of his illness. The last two servants, who returned from the last stop before Rājagṛha, reported to Sāgaradatta that the bridegroom had regained his full weight

and was in high spirits. At this news the merchant, blinded by joy, passed out veritable treasures to everybody without regard to their merit, from the most learned brahmin to the lowliest pariah.

But the next morning the false bridegroom threw off his pretense, donned his brahmin garb, and continued the journey on foot. Freed from the glittering guise which was out of character, he was splendid in the beauty that was truly his, like the moon which emerges from a rainbow-hued and lightning-girt cloud. The blackguard Dromedary contentedly dressed himself up as the bridegroom and mounted the groom's carriage where Jasmine was seated. And Jasmine shuddered at the sight of the misshapen man who outdid Śiva's monsters in grotesqueness, and she closed her eyes.

All the people in town left their work and ran out with great curiosity to see the bride and bridegroom. And when the townspeople saw the ill-matched couple—a pearl in a cast-iron setting—they raised their hands and cursed the Creator. "Even Love, whimsical as he is, could hardly be praised for this latest feat—should we praise you, Creator of proven decency? To have joined together so ill-suited a couple, a sylph and a goblin, makes you the recognized patron of all crooks!"

Buddhavarman had come out at the head of his entire guild, and he conducted the girl, who had conquered all Rājagṛha with her beauty, to his house. There he embraced his daughter-in-law and said to his wife, "She shall be both a son and a daughter to you!" Rites of honor were performed, bards chanted the praises of the house, actors and dancers performed until the day passed with the sun. Then Jasmine entered with the hunchback and Yajñagupta into a bedroom which enchanted eye and heart. Jasmine sat down on a beautiful chair near the bed, and the bridegroom and his friend seated themselves on a high bench beside her. All three were lost in their

thoughts, their minds blank with confusion. Lowering their heads, they each traced meaningless figures with their fingers on the floor. In this painful situation Jasmine thought, "Why doesn't the brahmin go away now that he has surrendered me?" And Dromedary too, who wanted his lovemaking to be private, was thinking, "Why doesn't he get out of the bedroom?"

Yajñagupta was aware of their tacit hints, which indeed suited the occasion, and decided that he had better go. He made a move to leave, but Jasmine cried out in despair as she saw him rise. "Do you run away and leave your wife in disaster?"

"Don't talk of disaster when you are close to the man for whom fate has destined you! Let him share your kisses and embraces. Mine is a bitter law, and what I receive from it is but a burden to carry. . . ." And he departed with the remaining servant girls.

Dromedary, that peasant, tried to drag the struggling girl to him, but, calling for help with the loud clang of the ornaments at her girdle and ankles, Jasmine ran out after the brahmin. She could not find him in the overcrowded hall where the townspeople were wildly drunk and the servants were dancing. "There he goes, there he goes!" she thought, but, deceived by a resemblance, she pursued a stranger. She struggled her way out and crossed over to the king's highway, frightened by the savage music in honor of Durgā that came from a potter's shed. Then she saw a Brother of the Skull who lay sleeping soundly along the road, unconscious with drunkenness. "Yes, that is how I shall be perfectly safe!" she decided.

Having made up her mind, she unfastened her costly jewels from her body and, true to the familiar practice of merchants, tied them securely inside her robe. She appropriated the skull-worshipper's paraphernalia, skull-staff, and so forth. Then, dis-

guised as a Brother of the Skull, she staggered as if in drunkenness out of the city and walked to a nearby village.

There she noticed a white-haired brahmin lady who was sitting on the verandah of her house carding cotton. Although alone, the woman was muttering imprecations upon fate in a sad voice. Then she exclaimed angrily, "Bah, what a cad, Buddhavarman!"

"But he is a good man," said Jasmine, "without any pretenses. What wrong has he done you, good woman, that you curse him?"

"Brother," answered the woman, fooled by Jasmine's disguise, "you are either a crook or a fool if you have not heard of his crime, which is public enough! But you must hear about it from someone else. Natural modesty does not permit a lady of my station to mention the unmentionable."

No sooner had she spoken than a proclamation was loudly heralded all through town with the beating of drums: "Hear ye! The king proclaims that any citizen who reports Buddhavarman's daughter-in-law will be relieved of his poverty. But anyone who foolishly dares shelter her in his house shall be parted with all his fortune and die a horrible death at the scythes!"

When the brahmin lady heard the proclamation, her eyes flowed with tears. Beside herself with joy, she laughed and wept at the same time. "Is it a wonder if a citizen of Ujjayini refuses to put up with such scoundrels, who are a match even for Mūladeva?<sup>4</sup> Bravo, bravo, Jasmine, noble and clever girl, for having tricked that baseborn Buddhavarman and his hump-backed son! If you are to live happily here in Rājagrha, stay my child, but as Yajñagupta's bride!"

When Jasmine heard her speak in this fashion, she thought that the selfless old lady would give her shelter if she revealed

4. A wizard, the prototype of the wily crook.

her identity. Quietly she told her all that had befallen her. The old woman was delighted. She embraced Jasmine warmly and led her into the house. Then she made her take off the skull-worshipper's garb and rest her weary body. She massaged her, bathed her in agreeably warm water, and at last made her lie down on a soft bed with a thick cover of flower petals.

The next morning Jasmine put on her gruesome string of skulls and entered the city, where the people ran around in excitement. "Why is everybody rushing around so excitedly?" she asked a citizen.

"The chief of the merchant guild here in town, Buddhavarman, has a son called Dromedary who is as misshapen as his name implies. An impotent brahmin, no better than a greedy pimp, gave the cripple his own wife whom he had just married. But the same evening the girl deserted Dromedary to look for the brahmin and has been gone ever since. That is why everybody is so excited."

Hiding a smile she said, "Friend, bring me at once to the house of that impotent brahmin!"

Charmed by the pleasant-spoken stranger the citizen took her to Yajñagupta's house, which was bare of decorations save for the hushed sound of holy recitations. She saw Yajñagupta sitting at the door of the hall where the sacred fires were kept. He was surrounded by pupils to whom he was explaining a treatise.

She put the skull-staff down and sat down cross-legged. "What is the book you are explaining?" she asked in a grumble.

"Your Reverence, it is the Laws of Manu. At this point the four stages of life and the four classes of society are described."

"Why do you lie to me? This is no book of law. I am sure it is the kind of hedonist work that attracts unprincipled people. Manu's Laws are a far cry from your own lawless behavior. A

physician who knows his medicine does not eat meat when he has a skin disease. You, a brahmin who pretends to explain Manu, have sinned against your class by marrying a girl of another caste. And you, an able-bodied, accomplished, and handsome man, have passed the girl off to a one-eyed imbecile eunuch! I ask you, Śivaite, why have you committed such a lawless deed? Or if it was right, tell me how!"

"Let us leave the question whether it was right or wrong," he said. "A man who is still under his father's authority must follow his master's irrevocable word. For example, Rāma-of-the-Hatchet could not transgress his father's word and so beheaded his own mother.<sup>5</sup> What do you have to say to that, sir?"

"The deeds of divine persons are not proper examples for ordinary men. Brahmins do not drink liquor because Rudra did.<sup>6</sup> And an intelligent person should not do everything his master tells him. What might his master not tell him to do when he is unhappy, or angry, or vexed with something? If a father says, 'I have a piercing headache, son; cut off my head!' should the son do as he is told? Besides, when Rāma cut off his mother's head at his father's orders, he had the power to put it back at once. You don't have divine powers. How can you undo the wrong you did? Now you will have to stay married to your wife. You have done what your master told you, and the deed is done."

Yajñagupta had no answer: what has a debater to say if his opponent's argument is sound? She sat for a while; finally, when the sun had reached the zenith, she rose up to take leave of him, pretending that it was her time to go begging.

5. This ancient hero, later elevated to an incarnation of Viṣṇu, beheaded his mother after she had irritated his father. When his father, pleased at his obedience, granted him a boon, he asked that his mother be revived.

6. A vedic storm god, predecessor of Śiva.

He stopped her. "This house is yours with all its riches," he said. "Your Reverence must have his meal here every day."

She smiled. "The food of a heathen like you is too unclean even for a skull-worshipper! Only if a man repents of the great sin he has done and collects himself again will his food be pure enough to share."

At this she departed and returned to the brahmin lady's house, where she threw off her disguise and took a bath. In the evening she again dressed up as a skull-worshipper, went to Yajñagupta's house and spent the rest of the day there. For many days thereafter she spent the meal hours and the nights at the brahmin lady's and the remaining time at Yajñagupta's.

One day a thought occurred to her. "If this brahmin committed his crime because he was in the power of greed, then it must be possible to goad him on by arousing his greed." If the means are available, the intelligent person does not stray from his task. Jasmine had a pink pearl necklace that fairly blushed with splendor, and this she told the old brahmin woman to sell. The coined and uncoined gold and silver from this sale she put into two copper pitchers which she buried just outside a nearby village at the edge of the woods. Then in the course of a leisurely discussion on metallurgy and mining she said to Yajñagupta, "A hermit must live one night in a village for every five nights he spends in town; you know this practice of wandering mendicants. All this time, my boy, I have been staying in Rajagṛha; my affection for you has made me break the hermit's rule. Since even householders are in peril when they are chained down by love, the greater the peril for Aspirants who have renounced the world and who despise even their own bodies. Therefore I now intend to go to Benares, for we of the Somasiddhānta sect are beholden to visit the sacred places.

"One other thing, though. I know a book on how to detect hidden treasures. It is called the Book of Mahākāla, and it is

the perfect medicine for the disease of poverty. One day when I was tired of meditating and strolled along the edge of the woods, I noticed certain signs of glittering on the ground which told me that someone had buried a treasure here. If you have any liking for me, take this treasure. Encounters with good men like you will bear fruit."

Together with her and his more reliable and solid pupils, Yajñagupta unearthed the treasure and secretly brought it home. Happily he told his father about the find and the skull-worshipper's knowledge of the Book of Mahākāla.

"Give up the Vedas; they are useless," said the father. "You'd better learn from the mendicant his great science, the Book of Mahākāla. This Book of Mahākāla matches clairvoyance if it can make you see through the treasure-filled earth! For the sake of the Book of Mahākāla you must try hard to ingratiate yourself with that mahāpāsupata as if he were Mahākāla himself!"<sup>7</sup>

At the prompting of his father, who coveted the Book of Mahākāla, Yajñagupta said to Jasmine when she was about to depart, "I shall follow you, sir, on your pilgrimage. For such as I the sacred waters, however unstable, are the source of bliss both seen and unseen."

She pretended to try to dissuade him, using words that lacked conviction. Hoping to acquire Mahākāla's wisdom, however, he refused to turn back.

When they arrived in Benares, she gave Yajñagupta a gem. "It is not worth too much," she said, "but you can live comfortably on what you receive for it. However, don't be tempted by your age to consort with the courtesans. Nine times out of ten an inquisitive student like you falls a victim to harlots and inevitably becomes impotent with his own wife. Harlots are

7. It must be kept in mind that the fake ascetic was assumed to know the book by heart, not to carry the manuscript around with him.

like witches; they suck all the blood of your body, and it is a miracle if you save your life. But where is virtue, where your good name and a happy life?"

He promised that he would do as she said; and so he did. For the words of the master they seek to flatter are not wasted on fortune-hunters who know the rules.

They spent four or five months in Benares, after which they left for Naimisa. From there they traveled to the Gate of the Ganges, then to the Kurus, and from the Kurus to Puṣkara, where they spent the rainy season. At the end of the month of Kārttika they visited Mahālaya, a very sacred place.

Then, one day, Jasmine said: "I shall unearth a rich treasure and give it to you. You must take this treasure, which will bring you all things seen and unseen, and return to your home. For those who are still in the stage of householder must strive toward the three goals of life. It is only ignoramuses who don't know their texts, fools, cripples, or penniless wretches who devote themselves entirely to pilgrimages in order to acquire merit. I myself shall now go on to Ujjayinī, for the city of Avanti is as much a haunt of skull-worshippers as it is of courtesans. The followers of the great Lord of Cattle who come to Ujjayinī on pilgrimage come only for the fights: they fight one another with their sharp-toothed tridents. A brawny brother of the skull may kill me this time. . . . Yes, the jugglers of the basket and the sword may face death when they expect it least. And the crime you have committed in Ujjayinī makes you as unwelcome there as a brahmin-killer in heaven. If you go there, you will find nothing, I fear, but misery. Therefore return home with your treasure and see how your parents are."

He thought: "The feet of this holy man are graciously disposed to me. This is my opportunity to lay hands on the Book of Mahākāla. For when people fear for their lives, they will

give up anything, even their wealth, to save their life, let alone a useless book. This man does not even care about his life, and I have danced attendance on him for a long time now. Why should he then refuse me the Book of Mahākāla? And the crime I have committed in Ujjayinī at my father's instructions—well, it is as easy as anything to conceal that. I shall hide in temple corners, put on dark clothes, let my hair grow wild and dirty, and nobody will notice me.”

Having decided that this was the right thing to do, he said to Jasmine, “Is it proper for pupils to desert their master in danger? Wherever you are bound, I shall go with you. As the full moon goes, so go its spots.” Jasmine allowed him to come with her.

When they reached Ujjayinī, she said to Yajñagupta, “Rest here for a while in Bhadravaṭa, my boy.<sup>8</sup> I shall come back here as soon as I have found a buried treasure. Don't worry if you do not see me for some time. Treasures are hard to come by in Ujjayinī, and I am afraid I shall have to look around for quite a while. Old people, fathers of large families, and orphans, they are all the same: no man from Ujjayinī will bury a sizable fortune.”

After giving this and other advice she went on the bank of the river Sitrā. She took off her skull-worshipper's garb and cleaned her immaculate body. And dressed as a Sister of the Skull in a robe as white as jasmine, with glittering ornaments of shell and crystal, she glowed like the autumn sky crowded with brilliant stars. Then, her breasts straining against her bodice like pumpkins in a net, she walked away with her little begging bowl. The skull-worshippers in full paraphernalia, drinking and drunk, crooked their fingers at her and shouted, “Come on, come on, girl with the roving eyes. Take the

8. A sacred grove near the temple.

brother who pleases you most and celebrate with him the drinking rites as the creed commands!"

Even in that crowd the girl kept her natural wit, which was greater than theirs. Walking on hurriedly, she retorted, "Better stop looking, by reverend sirs. I am a girl to poison your eyes, enchanting to look at but dreadful to touch. My husband is a Gandharva. He is crueller than an ogre . . . and he is jealous . . . and he never stops watching me! Like Yama himself, he must have killed off at least a million like you who were smitten with love and laid hands on me!"

"This goddess of beauty surely does not exaggerate," they said. "There have probably been even more. Where the whole universe suffers from insomnia at one glimpse of her beauty, it is a miracle that Brahmā, Viṣṇu, and Śiva are not dueling. So let her favor her Gandharva, or the handsomest man in the world, with her looks of love!"

Ploughing a furrow to the city through a crowd of heretics who kept following her, she went to her father's house, which buzzed with prayers and benedictions. Reaching her goal at last, she entered in high spirits the seven-storey mansion and at the door of her mother's apartment asked for alms. A servant girl appeared from the house with a gift and looked Jasmine over from head to toe. At last she recognized the girl and, beating her breast and head, rushed inside and nervously addressed her mistress in a whisper.

"You are lost, you are ruined! You have fostered at your bosom like a trembling garland of sirīśas your jasmine-garlanded daughter, and there she is, waiting at your door, her body defiled with the skull-bearer's garb! Look for yourself!"

The mother went outside and saw her daughter as she was. But forgetting respectability, she tore her daughter's headpiece off, broke the skull in pieces, and shattered her bowl and shell and glass jewelry. She ripped the bodice in shreds, purified and

cleaned her with benedictions and a bath, and finally took her into the women's apartments. Only then did she speak.

"Tell me, my dear, speak freely. What is the meaning of all this?"

"How could you be so mistaken, mother? Would your virtuous daughter ever really adopt the vows of the skull, even if she happened to be thrown in with sinners? But my story must wait until father has been called. I have a difficult task with which I need his help."

As soon as Sāgaradatta was called, he came and set eyes on his daughter. He cried, "What is this? Why—" and fell in a faint. When Jasmine saw that her father had lost consciousness, she embraced him and greeted him, laughing merrily to reassure him.

When he had regained his composure, she said, "Your son-in-law is staying in the Bhadravaṭa enclosure. Tell your sons to bring him here."

So he did, and Yajñagupta was forcibly captured by his brothers-in-law. "You are caught, kidnapper," they taunted. "What do you seek here, scoundrel? Get up. Get where you belong. The king has summoned you!" they added, grinning.

Then he recognized them, and expecting imprisonment and death he prayed *mā nas toke* . . . and tied his hair in a brahmin's knot.<sup>9</sup> He begged them, "Please wait for a moment, until my friend, a skull-worshipper, comes back."

Laughing, they said. "The friend you are waiting for is ahead of you. He is the one who ordered us to arrest you. Those whose affections are selfless and who speak as they think become disenchanted with blackguards like you, even if they have been friends!"

9. *Mā nas toke* is a stanza from Rig Veda I. 114.8, which is used as a ritual prohibition: "Thou shalt not injure us in our seed, nor in our life, nor in our cattle and horses. . . ."

With great jolliness they seized the speechless and desperate man and, piling abuse on him, took him to their house where his in-laws were happily assembled. Sāgaradatta, all gooseflesh with excitement and love, embraced and reassured his son-in-law. He bade him welcome with the proper offerings and, when Yajñagupta had finished eating, made him sit on a couch which had been set up in an enchanting garden house. The parents, the brothers-in-law with their wives and children, the authorities, the guild leaders, and the merchants sat down around him. Then entered the daughter herself with the sweet sound of ornaments: she was like a clean-washed autumn sky echoing with the call of flamingos. Her elders she greeted with her head, her contemporaries with her voice, and Yajñagupta with frequent glances that were heavy with mascara and love. Then she sat down on a low seat at her parents' feet and related all her adventures, beginning with her wedding. Meanwhile Yajñagupta thought, "A curse, a curse on my useless erudition; I have been tricked by a well-born girl with two fingers of sense! If that is what women can do, their wit is sharper than kuṣa grass. Is there anything more astounding than the way in which this girl managed to change her appearance, her walk, even her voice? If anybody wonders how the dim-witted Pāṇḍavas could have lived in disguise at Virāṭa's court, she furnishes an excellent case in point!<sup>10</sup> At any rate, she has released me from my private hell, the great feat I did at my father's bidding. . . ."

When the king heard of the story, he delightedly sent for Jasmine and her husband. He gave Yajñagupta a grant of many large villages with much gold, then said, smiling: "You had

10. The Pāṇḍavas, as the result of an unfortunate gambling match, were compelled to withdraw to the jungle for twelve years and to live the thirteenth year in disguise at the court of King Virāṭa.

better take care in your wisdom, my girl, that your husband does not neglect his duties as a brahmin!"

Thus driven by a singleness of purpose which overrode her jealousies, this merchant's daughter succeeded in making her husband marry her: for those who wish to live do not defy the inviolable decree of the lord of the realm. And the brahmin cherished Jasmine, the vaiśya bride, for the joys of love, for the birth of sons, for happiness, and for faithfulness. And he lived a life of a hundred years crowned by the fruits of continuous good works.

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# EAST VS. WEST ECONOMIC GOALS —Any Difference?

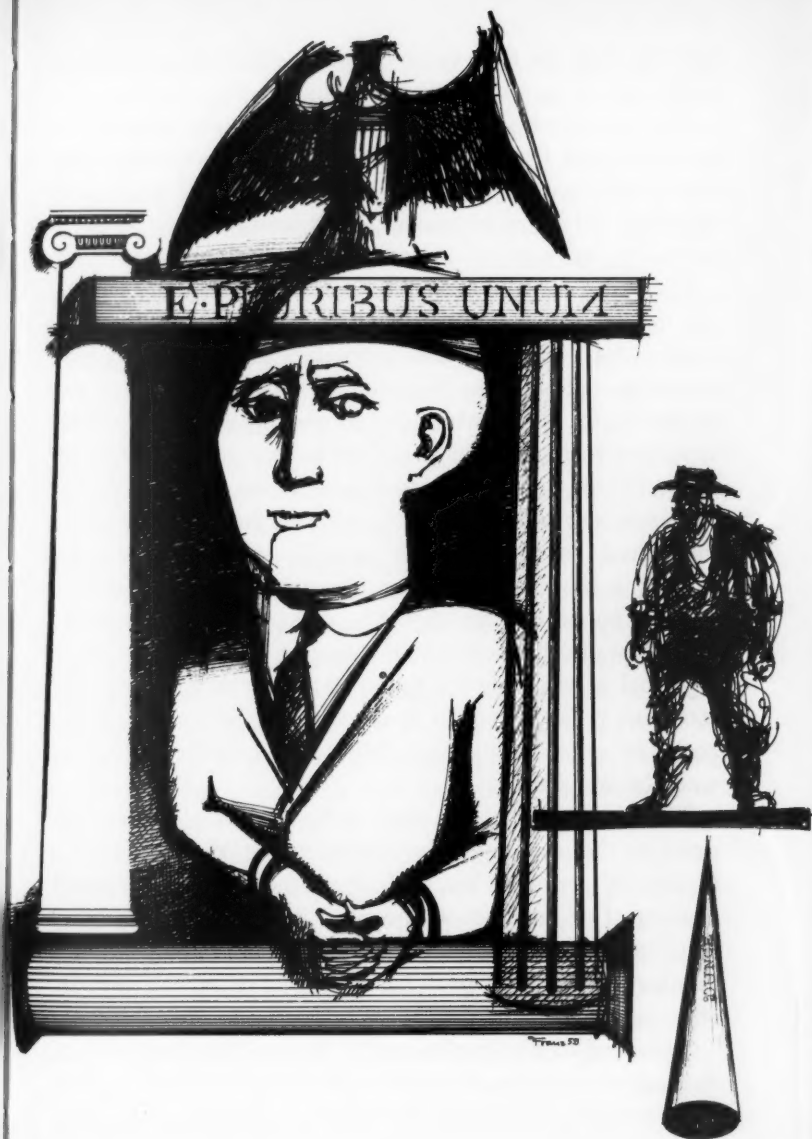
By GEORGE J. STIGLER

*Should we not be more concerned with the "decline of faith in the unregulated and unguided individual" on the economic front?*

Three goals have long dominated economic policy in this country and in the Western world—maximum output, growth of the economy, and minimum inequality of income.

Let us examine these briefly. The first and most ancient goal is the largest possible output of goods and services. Maximum output has evolved, under the impact of social events and economic analysis, to the point where it has two aims: to employ as fully as possible—that is, as fully as the other goals allow—the resources at society's disposal (unnecessary unemployment of men and capital should be eliminated), and to employ these resources as efficiently as possible. Broadly speaking, no resource should be used in one place if it would produce more elsewhere—it should be impossible to reshuffle resources to achieve more of some goods without getting less of others.

The second goal is the growth of the economy. Natural resources should be prospected, capital accumulated, and new products and technologies discovered. These forward-looking



activities have for their common end a steady rise over time in the level of income relative to population.

The last primary goal of economic policy is a comparative newcomer, still a vague sentiment when maximum output had been entrenched for centuries. It is the reduction in income inequality. The goal of equality, or at least of much reduced inequality, has become one of the great forces of our times.

These three goals—maximum output, substantial growth, and minimum inequality of income—have provided the justifications for every important innovation in economic policy. Maximum output is the purpose of our free trade within the United States, the combating of monopoly, and various anti-depression measures. The growth of income is intended to be served by our various conservation measures, much of public education, our public land policy, and the current flirtation of the federal government with basic research. Minimum inequality is the goal of the personal income tax, agricultural policies, public housing subsidies, unemployment insurance, and a host of other policies. Of course I simplify when I identify a policy with only one goal; it is a poor protagonist of an economic policy who fails to argue that it will serve all the goals of economic policy and that it is also wholly in keeping with the Scriptures.

There are, to be sure, a variety of minor goals of policy. The desire to eliminate racial discrimination has led to certain regulations of economic life, and, again, the desire for personal equality of treatment independent of income has led to other regulations, such as prohibitions on personal railway-rate discrimination. But these goals have had only minor and sporadic effect upon economic policy.

One need hardly emphasize the obvious fact that many of the policies we have adopted have ill served any of these goals. The farm program was adopted to help a class of families with

low average incomes and possibly to conserve resources, but quite probably it has increased income inequality, at least with- in agriculture, and it is extremely doubtful that any useful conservation of resources has been achieved. The tariff was presumably designed to increase domestic output, but econo- mists believe it has never been an effective policy to this end. There have also been plain raids on the federal treasury, such as the silver-purchase program, which have only the most tenu- ous connection with the goals of policy.

But every society makes mistakes in achieving its goals; often it misunderstands the efficacy of a given policy in reaching a given goal, and often the announced goals are merely cloaks worn by particular groups seeking particular ends. These aber- rations and deceptions do not constitute a contradiction of the primacy of the goals of maximum output, substantial growth, and decreased income inequality.

A question that can be raised with respect to basic goals is whether they are fully attainable. I would say that they should not be. An abstract goal gives direction to economic policy, just as the North Pole gives direction to a compass, and, just as the compass becomes useless at the magnetic North Pole, so the goals of policy lose their value as guides once they are fulfilled. Specific goals, such as so many television sets or high- way miles or dollars of tax receipts, must usually be realizable, but general goals should not be fully realizable.

Whether one accepts this position or not, I think it is fair to say that at the present time the basic goals are widely be- lieved to be tolerably well fulfilled in the United States.

Consider income inequality. Few people think that the pro- gression in the personal income tax is seriously insufficient, and many think it is excessive. Public sympathy for groups tradi- tionally viewed as disadvantaged, in particular labor unions and farmers, is at low ebb. It would be wrong to say that "under-

privileged classes" has been deleted from the lexicon of neo-liberalism, but the concern for them has lost urgency and to some degree has been supplanted by concern for the peoples with highly developed desires in underdeveloped economies.

The satisfaction with the productive performance of the American economy is even more complete. We feel rich. We believe that on the average we are denied only luxuries over whose absence no one can wax indignant. It is true that the workingman still has only a black-and-white television set and that his car is several years old, but so what? Who really cares whether a farm program, or a river-and-harbor pork barrel, wastes a billion dollars, or less than one day's output of the American economy? Who believes that the rate of growth of income is seriously inadequate or that unemployment of resources in recent years has been grievously large? Even the critics of the thirties have been silenced or turned into flatterers. In as populous a nation as ours there still exist critics of the productive performance of the economic system, but they are in the uncomfortable position of criticizing the form of a golfer who wins all the tournaments.

This sense of prosperity, I am certain, is a temporary thing. The postwar growth of consumer real income, compared with 1932-45, has been so sudden and so large that we have not been able to build up new desires, but they are gradually emerging. That celebrated axiom of economics, the insatiability of human desires, has survived the much greater increases in real income achieved at earlier times. In another decade or so we shall be complaining, and with sincere pain, of the widespread need to satisfy elementary decencies such as a summer cottage, the electronic range, the wholly air-conditioned house, and the family psychiatrist. But for the moment we are well off.

Not only should the basic goals of economic policy be un-

attainable; they should also be part and parcel of the civilization of a society. Ours are not. Our basic goals are the same as the basic goals of the Russians.

The Russians also believe in equality of income. Their fundamental ethical claim, indeed, is that they will remove all income differences not strictly justifiable by social performance and/or need and in particular will not allot any part of income to a class of private owners of the means of production. I would quarrel violently with their belief that private property is not a basic institution of economic progress, but the argument is being settled for many people by the substantial growth of output of the Russian economy. We may also argue that the inequalities of income in Russia are large and not so closely related to social performance as our own inequalities. Important as these questions are in assessing the extent to which a society achieves its goals, they seem to raise arguments over policies rather than over goals.

And the Russians share the goals of maximum output and rapid economic growth. Indeed, every society that is purposive and non-traditional seeks to do efficiently whatever it seeks to do. The differences among societies arise with respect to what output they seek to maximize. In our society the output to be maximized is chosen primarily by the individual consumers; in the Russian economy the output to be maximized is chosen primarily by a central, dictatorial body. Hence the Russian desired output contains more munitions and heavy industrial equipment, as a share of total output, than the American desired output; but this, again, is a difference in content (of immense importance, to be sure) rather than in goal.

Now, I do not wish to imply that a goal loses validity because it is shared by an unfriendly person. It does not seem sensible to abandon Mozart simply because one encounters a boor who

also admires his music. And to spurn a goal such as maximum output is to spurn rational behavior.

Nevertheless, the fact that our economic goals are the same as the Russians' is anomalous: one would expect two great powers to have carried into their economic goals some elements of the political philosophies that lead to their antipathy and rivalry. The fact that our goals and the Russian goals are the same has also contributed mightily to the failure of American foreign policy—a policy which has no cutting edge of political philosophy that might attract the leaders of other countries. We offer the same goals, and differ chiefly in promising less with respect to their fulfilment.

The reason I wish to propose a somewhat different set of goals than those we now profess, however, is not to set ourselves apart from Russia, nor is it to capture the intellectual leadership of the neutral world—although these are not negligible hopes. Even if the United States were the only body of land on earth or in space, we should urgently need to give direction and emphasis to our economic policies. It is high time that we set aside the details of managing a comfortable dormitory and concern ourselves with the kind of society we wish to inhabit.

The supreme goal of the Western world is the development of the individual: the creation for the individual of a maximum area of personal freedom, and with this a corresponding area of personal responsibility. Our very concept of the humane society is one in which individual man is permitted and incited to make the utmost of himself. The self-reliant, responsible, creative citizen—the “cult of individualism” for every man, if you will—is the very foundation of democracy, of freedom of speech, of every institution that recognizes the dignity of man. I view this goal as an ultimate ethical value; others may wish to reach it through powerful utilitarian arguments.

It is one thing for a value to have verbal sovereignty; it is quite another for it to permeate the social system. Individualism has few enemies in the United States, but its many friends are becoming less fervent, and its influence upon the course of events is shrinking at an alarming rate. One would incur ostracism in our universities if he denied that man should be free to think what he wishes, but increasingly he is looked upon as a quaint survivor of ancient times if he believes that man should be master of his fate, even when he bears the main effects of his own decisions. The faith in the individual has been much impaired by a fairly new doctrine, a very old belief, and the changing structure of society.

The fairly new doctrine is that of environmental determinism, which we owe to men as diverse as Godwin and Marx. On an ever widening scale it is being argued that social institutions mold the character of man: that the food and housing, family, neighborhood, and education of the child have a decisive influence upon the way he thinks and behaves as a man. No one can doubt, in the light of generations of social research, that this theory contains much truth. Its thrust is evident: interest is inevitably shifted from man's exertions to the social environment, which to a considerable degree determines the nature and direction of these exertions.

The very old belief is that most men are incapable of conducting their affairs wisely. Only in the nineteenth century did this belief temporarily lose its dominance: at the threshold of the period of universal education it was widely believed that the vast majority of the population could be educated to so high a level of rationality that it could be trusted with the control of public affairs as well as the proper conduct of personal affairs.

Now that the great majority of our population receives at least twelve years of formal education, it is no longer possible to

expect great results—one must observe them. And, on the whole, I sense a growing disillusionment, although direct documentation of this disillusionment is rather difficult to present because the miracle of education still provides, for too many intellectuals, the anchor of their democratic faith and the emblem of their ethical respectability.

If I may judge by my own discipline, however, the skepticism of the individual is reappearing in explicit form. The consumer, according to professional economic literature, is a complaisant fellow, quick to follow the self-serving mandates of Madison Avenue or of a long-distance call from a stock broker located just beyond the reach of extradition. This consumer is commonly given only the virtue of consistency, and it is not clear whether his choices are treated as well ordered because his follies are reflexive, symmetrical, and transitive or because, if they were not, his indifference curves would intersect.

I suspect that other disciplines are becoming equally outspoken, but we may document the declining faith in the individual by something almost as strong as words—actions. Most intellectuals are in favor of increasing governmental control over education (compulsory attendance, certification of teachers, control of curriculums and school year, etc.) and of increasing intervention by state and federal governments in local governmental control of education. Yet education is surely the one field in which, if education imparts either wisdom or logical training, one would most confidently expect that increasing authority be reserved to the individual and the small political unit.

The last component of the declining faith in the individual has been the increasing complexity and mutual dependence of social relationships in an urban industrial society. The effects of an individual's behavior upon others become large. A farmer with deplorable sanitary habits may be an affront to humanity;

a similar city dweller is an immediate hazard to his neighbors. An eccentric or timid pioneer (if this latter is not a contradiction in terms) bears the main costs of his deficiencies; a similar entrepreneur can throw a thousand blameless men out of work (not very long, however). A man, in short, can be trusted with hostile Indians but not with friendly citizens.

I hope that I have sketched with some plausibility the causes of the decline of faith in the unregulated and unguided individual, for each contains a good deal of validity. Each has also been much exaggerated. No social research has shown that a man's behavior is independent of his will or that in our society his potentialities of achievement are rigidly set by his environment. Our trust in education has been a narrow, academic faith, and we have almost forgotten that there are such things as non-academic abilities or that the schoolroom is only one, and not the major, center of education for life. And, if our society is growing more complex, it is also offering a variety of opportunities for individual choice quite beyond the dreams of earlier times.

One can nevertheless concede much validity to the main sources of decline of faith in the individual and yet not budge one inch from the goal of individual freedom. That men are not independent of their environments does not mean that they should be denied the opportunity of determining their lives, and their environments, as far as this is possible. That education does not turn most men into scholars does not reduce the value of allowing them to make their own wise and stupid decisions. That the increasing interdependence of men calls for a continuing review of their rights and duties is no reason for assuming either that no opportunities for new freedom arise or that conflicts can be settled only by coercion.

We shall wish to revise the particular content of individual freedom and responsibility as our society and as our under-

standing of our society change, but always there is the problem—the transcendental problem of all liberal societies—of seeking to enlarge the individual's share in conducting his life. Men are not mere social animals, to be governed into prosperity or tranquilized into non-unhappiness.

Let us return to our traditional goals of economic policy. Two of them—maximum output and substantial growth—are ethically neutral: they could be adopted by a nation of gourmets or ascetics or warriors, by tyrants or by democrats. What ethical content they possess has been introduced, almost surreptitiously, by defining output as that which is desired by free men.

We have placed the main burden of direction of social policy upon the goal of reduced income inequality, and it cannot bear this burden. It represents, indeed, quite fairly one element of the basic value of individualism: humanitarianism, in the form of the desire to eliminate poverty and its concomitants such as malnutrition and untended illness. Much as we may quarrel among ourselves as to the proper way in which to eliminate such ugly things, all of us wish to be rid of them.

For the rest, minimum income inequality has a very dubious congruence with our basic values. One would fear for the individual in a society where a small group of extremely wealthy individuals had the (monopoly) power to exploit others or the (financial) power to subvert the political process. Neither threat is real or potential: we have too many wealthy people to collude and too few to exert a directive influence upon political life. The goal of minimum income equality has, at best, an adventitious and, at worst, a perverse relationship to individual freedom.

The goal of individual freedom does not lead automatically to a cut-and-dried program of economic policies. Continuing research will have to go into the discovery of the meaning of

freedom under changing social conditions, and continuing ingenuity of high order will be required to contrive policies which will increase this freedom. It would be much more attractive if I could propose immediately a series of policies which were wholly novel, irritatingly paradoxical, and—after the smoke of battle had cleared—irresistibly persuasive, but in good conscience I cannot.

Precisely because the tradition of individual freedom has been so fundamental to our political philosophy, the most obvious corollaries of it are well known, and these corollaries, like the goal itself, will appear outmoded to many eyes. Yet the implications of the goal are not simply a formalized description of life at some admired date in history; we have never done as much or as well as we could, and today we are doing very poorly.

Consider the policy of competition. This policy has a basic role in striking down limitations to individual freedom and challenging individual capabilities, in better proportioning rewards to efforts. Yet the policy is rapidly losing its popular support and its vitality. On the one hand, there is a growing faith—it is no more than this—that the giant enterprise is the home of progress; on the other hand, the argument that monopoly reduces income has little emotional appeal to a rich nation.

If we place a main value on the individual, however, there is no justification for our complacency. Since the war our anti-trust policy has drifted into a spiritless action against the more blatant forms of conspiracy and monopolization. While the federal government has been opening up these back lots to individual freedom, it has quietly been erecting barriers to individual action throughout the prairies of economic life, with its paternalistic small-business programs and the regulation of competitive industries such as agriculture, motor trucking, and housing.

Our programs to assist distressed industries collide directly with the policy of competition, and they seem to me a clear instance of the abandonment of individual freedom not because it is an obstacle to other goals but because freedom is not at the front of policy. Should we, as we almost always do, ease the problems of these industries by restricting output, stockpiling it, fixing prices—each a policy serving to decrease the freedom and responsibility of the individuals who are in these industries or who wish to enter them? We can achieve the same humanitarian purpose by helping individuals to move to more remunerative industries and localities by providing educational facilities, informational services, travel grants, and other policies designed to widen their range of alternatives.

When did we last initiate a large federal program to increase the range of productive activities open to the individual or to enlarge the scope for individual freedom within an area? Recent answers are hard to come by. The question would be just as difficult to answer if we addressed it to the heads of state and local governments, even could we distract them for a moment from such important work as the licensing of scores of trades such as yacht salesmen, exacting oaths from wrestlers that they are not subversive, but mostly imploring a higher governmental level to take over their functions.

We now have innumerable policies designed to protect the consumer, including some that protect him against low prices. Obviously, we should help to protect him against those forms of fraud which he does not actively seek out, but should we protect him against unwise behavior? If we prohibit gambling to preserve him from moral weakness or actuarial myopia, should we not also supervise his investment portfolio to keep his uranium holdings down to a prudent level? My complaint against such policies is less that the wisdom of a course of

action is usually debatable than that there is nothing admirable about an involuntary saint.

The policies designed to influence the distribution of income call for thorough restudy in the light of the goal of individual freedom. The main objection to a progressive income taxation beyond that implicit in the alleviation of poverty is that it imposes differential penalties on personal efforts that poorly serve the goal of inciting each individual to do his best. Almost the only instrumental defense for such a tax is that large incomes are "unfair." The main possible meaning of this charge is that large incomes are not fully earned. When this is true, and the extent of its truth has received embarrassingly little study, why do we not deal directly with the institutions which give rise to large, systematic, and persistent earnings beyond what the community believes are just?

The inheritance of wealth may be one such institution. The right to unlimited, or at least very large, bequest has customarily been defended in terms of its effects upon the donor, with very little consideration of the possible effects on the donees. It has traditionally been argued that the donor is led to vast exertions and to continued thrift. Yet the need for relatively free bequest to stimulate large efforts is surely debatable: we find that men also make immense exertions in areas such as politics, the arts, and the sciences, where the chief legacy of a highly successful man to his son is an inferiority complex. On the other hand, the large inheritance of wealth probably has the effect of reducing the incentives to the heir to exercise his full capabilities—he has received the gold medal at the beginning of the race. Since there are precious values in the family itself as an institution, we cannot eliminate all gifts (let alone intellectual gifts!) and bequests, but it may be advisable to tax inheritances (including gifts during life, but not estates) much more severely than we already do.

These comments on policies are highly tentative, but I hope that they are sufficient to indicate that a thoroughgoing philosophy of individual freedom and responsibility would lead to programs that are neither consistently "radical" nor consistently "conservative" by our present standards. We do not have such a thoroughgoing philosophy at present; we have been content to defend the freedoms of the individual once or twice a year, when the attack on them is unusually direct and brutal, and complacently design our policies in complete neglect of this goal the remainder of the year. No one has a greater responsibility than the university community, which is among the chief beneficiaries of a regime of freedom, for reviving faith in this goal and for developing its implications for economic and, in fact, for all social policy.

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